

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

FORM 8-K

Current Report
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **February 13, 2024**

SUNSHINE BIOPHARMA, INC.
(Exact name of registrant as specified in its charter)

Colorado
(State or other jurisdiction
of incorporation)

001-41282
(Commission File Number)

20-5566275
(IRS Employer ID No.)

6500 Trans-Canada Highway
4th Floor
Pointe-Claire, Quebec, Canada H9R0A5
(Address of principal executive offices) (zip code)

(514) 426-6161
(Registrant's telephone number, including area code)

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

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, par value \$0.001	SBFM	The Nasdaq Stock Market LLC
Common Stock Purchase Warrants	SBFMW	The Nasdaq Stock Market LLC

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))

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.

On February 13, 2024, Sunshine Biopharma, Inc., (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Aegis Capital Corp. (the “Underwriter”), in connection with a firm commitment underwritten public offering (the “Offering”) of 71,428,571 Units (defined herein), consisting of (i) 26,428,571 common units (“Common Units”), each consisting of one share of common stock of the Company, 0.1 of a Series A warrant (the “Series A Warrants”) to purchase one share of common stock at an exercise price of \$2.10 per share or pursuant to an alternative cashless exercise option (described below), which warrant will expire two-and-a-half years from the closing of the Offering, and 0.2 of a Series B warrant (the “Series B Warrants” and together with the Series A Warrants, the “Warrants”) to purchase one share of common stock at an exercise price of \$2.38 per share, which warrant will expire on the five-year anniversary of the closing of the Offering; and (ii) 45,000,000 Pre-Funded Units (the “Pre-Funded Units” and together with the Common Units, the “Units”), each Pre-Funded Unit consisting of one pre-funded warrant (the “Pre-Funded Warrants”) to purchase one share of common stock, 0.1 of a Series A Warrant and 0.2 of a Series B Warrant. The purchase price of each Common Unit was \$0.14, and the purchase price of each Pre-Funded Unit was \$0.139. The Pre-Funded Warrants are immediately exercisable, have an exercise price of \$0.001 and may be exercised at any time until all Pre-Funded Warrants are exercised in full.

In addition, the Company granted the Underwriter a 45-day option to purchase up to an additional 10,714,285 shares of common stock and/or Pre-Funded Warrants, representing up to 15% of the number of common stock and Pre-Funded Warrants sold in the Offering, and/or an additional 1,071,429 Series A Warrants representing up to 15% of the Series A Warrants sold in the Offering, and/or an additional 2,142,857 Series B Warrants representing up to 15% of the Series B Warrants sold in the Offering, solely to cover over-allotments, if any.

Under the alternate cashless exercise option of the Series A Warrants, beginning on the date of the Warrant Stockholder Approval (as defined below), the holder of the Series A Warrant has the right to receive an aggregate number of shares equal to two times the aggregate number of shares of common stock that would be issuable upon a cash exercise of the Series A Warrant. In addition, beginning on the date of the Warrant Stockholder Approval, the Warrants will contain a reset of the exercise price to a price equal to the lesser of (i) the then-current exercise price and (ii) lowest volume weighted average price for the five trading days immediately preceding and immediately following the date we effect a reverse stock split in the future with a proportionate adjustment to the number of shares underlying the Warrants. Finally, with certain exceptions, the Series B Warrants provide for an adjustment to the exercise price and to the number of shares underlying the Series B Warrant, upon our issuance of our common stock or common stock equivalents at a price per share that is less than the then-current exercise price of the Series B Warrant (subject to a floor of \$0.10 prior to the Warrant Stockholder Approval).

The alternative cashless exercise option included in the Series A Warrants and the other adjustment provisions in the Warrants described above will be available only upon receipt of such stockholder approval as may be required by the applicable rules and regulations of the Nasdaq Capital Market (the “Warrant Stockholder Approval”).

The Offering closed on February 15, 2024. The aggregate gross proceeds to the Company were approximately \$10.0 million, before deducting underwriting discounts and other estimated expenses payable by the Company. On February 15, 2024, the Underwriter also partially exercised its over-allotment option with respect to 830,357 Series A Warrants and 1,660,714 Series B Warrants.

The Offering was made pursuant to an effective registration statement on Form S-1 (File No. 333-276817) and the preliminary prospectus contained therein, which was filed by the Company with the Securities and Exchange Commission (the “SEC”) on February 1, 2024, amended on February 9, 2024, and declared effective on February 12, 2024. A final prospectus relating to the Offering was filed with the SEC on February 14, 2024. The Company intends to use the net proceeds from the Offering for general corporate purposes and working capital.

Under the terms of the Underwriting Agreement, the Underwriter received an underwriting discount of 8.0% to the public offering price for the Units. In addition, the Company agreed to (a) pay a non-accountable expense allowance to the Underwriter equal to 1.0% of the gross proceeds received in this Offering and (b) to reimburse the Underwriter \$150,000 for reasonable legal fees.

The foregoing description of the Underwriting Agreement, Pre-funded Warrant, Series A Warrant and Series B Warrant is not complete and is qualified in its entirety by reference to the full text of such agreements, copies of which are filed or incorporated by reference as exhibits to this report.

Item 8.01. Other Information.

On February 13, 2024, the Company issued a press release announcing the pricing of the Offering. A copy of the press release is filed as an exhibit to this report.

On February 15, 2024, the Company issued a press release announcing the closing of the Offering. A copy of the press release is filed as an exhibit to this report.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
1.1	Underwriting Agreement, dated February 13, 2024, by and between the Company and Aegis Capital Corp.
10.1	Form of Pre-Funded Warrant (incorporated by reference to S-1/A filed February 9, 2024)
10.2	Form of Series A Warrant
10.3	Form of Series B Warrant
99.1	Press Release dated February 13, 2024
99.2	Press Release dated February 15, 2024
104	Cover Page Interactive Data File (formatted in Inline XBRL).

SIGNATURES

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

Dated: February 15, 2024

SUNSHINE BIOPHARMA, INC.

By: /s/ Dr. Steve N. Slilaty
Name: Dr. Steve N. Slilaty
Title: Chief Executive Officer

Exhibit 1.1

UNDERWRITING AGREEMENT

February 13, 2024

Aegis Capital Corp.
1345 Avenue of the Americas, 27th Floor
New York, NY 10105

Ladies and Gentlemen:

Sunshine Biopharma, Inc., a Colorado corporation (the “**Company**”), agrees, subject to the terms and conditions in this agreement (this “**Agreement**”), to issue and sell to Aegis Capital Corp. (the “**Underwriter**”) an aggregate of 71,428,571 of the Company’s units (each, a “**Closing Unit**”), with each Closing Unit consisting of either: (A) one (1) share of Common Stock, \$0.001 par value per share (the “**Closing Shares**”) of the Company (the “**Common Stock**”) and one-tenth (1/10th) of a Series A warrant to purchase one (1) share of Common Stock at a per Share exercise price of \$2.10 (representing 1500.0% of the per Closing Common Unit (as defined below) offering price; and two-tenths (2/10th) of a Series B warrant to purchase one (1) share of Common Stock at a per Share exercise price of \$2.38 (representing 1700.0% of the per Closing Common Unit (as defined below) offering price (each, a “**Closing Common Unit**”); or (B) one pre-funded warrant (each, a “**Pre-funded Warrant**”) to purchase one (1) share of Common Stock at an exercise price of \$0.001 and one-tenth (1/10th) of a Series A warrant to purchase one (1) share of Common Stock at a per-Share exercise price of \$2.10 (representing 1500.0% of the per Closing Common Unit offering price; and two-tenths (2/10th) of a Series B warrant to purchase one (1) share of Common Stock at a per-Share exercise price of \$2.38 (representing 1700.0% of the per Closing Common Unit offering price (each, a “**Closing Pre-funded Unit**”). The shares of Common Stock referred to in this Section are hereinafter referred to as the “**Closing Shares**”; the Warrants referred to in this Section are hereinafter referred to as the “**Closing Warrants**”; and the Pre-funded Warrants referred to in this Section are hereinafter referred to as the “**Closing Pre-funded Warrants**.” No Closing Common Units will be certificated, and the Closing Shares and the Closing Warrants comprising the Closing Common Units will be separated immediately upon issuance. No Closing Pre-funded Units will be certificated, and the Closing Pre-funded Warrants and the Closing Warrants comprising the Closing Pre-funded Units will be separated immediately upon issuance. At the option of the Underwriter, the Company agrees, subject to the terms and conditions herein, to issue and sell additional Option Securities (as defined in Section 4.2 hereof). The Closing Units and the Option Securities are herein referred to collectively as the “**Securities**”. The number of Closing Units and Option Securities to be purchased by the Underwriter is set forth opposite its name in Schedule 4.1.2 hereto. Aegis Capital Corp. has agreed to act as the Underwriter in connection with the offering and sale of the Securities.

1. **Definitions.**

- 1.1. “**Affiliate**” has the meaning set forth in Rule 405 under the Securities Act.
- 1.2. “**Applicable Time**” means Eastern Time on the date hereof.
- 1.3. “**Bona Fide Electronic Road Show**” means a “bona fide electronic road show” (as defined in Rule 433(h)(5) under the Securities Act) that the Company has made available without restriction by “graphic means” (as defined in Rule 405 under the Securities Act) to any person.
- 1.4. “**Business Day**” means a day on which the Nasdaq Capital Market is open for trading and on which banks in New York are open for business and not permitted by law or executive order to be closed.
- 1.5. “**Commission**” means the United States Securities and Exchange Commission.
- 1.6. “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.7. “**Exempt Issuance**” means securities issued (i) under the Company’s current or future equity incentive plans or issued to employees, directors, consultants or officers as compensation or consideration in the ordinary course of business, including any issuance of options (and the underlying shares of Common Stock) in exchange for options issued under the Company’s equity incentive plans, provided if to consultants such consultants shall agree to sign lock-up agreements similar in form to the lock-up agreements signed by the officers and directors with a term not less than the Standstill Period; (ii) issued pursuant to agreements, options, restricted share units or convertible securities existing as of the date hereof provided the terms are not modified; 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, (iii) issued pursuant to acquisitions or strategic transactions (whether by merger, consolidation, purchase of equity, purchase of assets, reorganization or otherwise) approved by a majority of the disinterested directors of the Company, provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the Standstill Period, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

1.8. “**Final Prospectus**” means the prospectus in the form first filed with the Commission pursuant to and within the time limits described in Rule 424(b) under the Securities Act.

1.9. “**Free Writing Prospectus**” has the meaning set forth in Rule 405 under the Securities Act.

1.10. “**Indebtedness**” means (a) any liabilities for borrowed money or amounts owed in excess of \$100,000 in aggregate (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company’s consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of \$100,000 in aggregate due under leases required to be capitalized in accordance with GAAP.

1.11. “**Investment Company Act**” means the Investment Company Act of 1940, as amended, and the rules and regulations promulgated thereunder.

1.12. “**Issuer Free Writing Prospectus**” means an “issuer free writing prospectus” (as defined in Rule 433(h)(1) under the Securities Act).

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

1.14. “**Preliminary Prospectus**” means any preliminary prospectus included in the Registration Statement prior to the time at which the Commission declared the Registration Statement effective.

1.15. “**Pricing Disclosure Package**” means the Preliminary Prospectus collectively with this Agreement (including documents attached hereto or incorporated by reference herein) and the documents and pricing information set forth in Schedule 1.15 hereto.

1.16. “**Prospectus Delivery Period**” means such period of time after the first date of the public offering of the Units as in the opinion of counsel for the Underwriter a prospectus relating to the Units is required by law to be delivered (or required to be delivered but for Rule 172 under the Securities Act) in connection with sales of the Units by the Underwriter or dealer.

1.17. “**Registration Statement**” means (a) the registration statement on Form S-1 (File No. 333-276817), including a prospectus, registering the offer and sale of the Closing Units under the Securities Act as amended at the time the Commission declared it effective, including each of the exhibits, financial statements and schedules thereto, (b) any Rule 430A Information, and (c) any Rule 462(b) Registration Statement, including in each case any documents incorporated by reference therein.

1.18. “**Rule 430A Information**” means the information deemed, pursuant to Rule 430A under the Securities Act, to be part of the Registration Statement at the time the Commission declared the Registration Statement effective.

1.19. “**Rule 462(b) Registration Statement**” means an abbreviated registration statement to register the offer and sale of additional Units pursuant to Rule 462(b) under the Securities Act.

1.20. “**Sarbanes-Oxley Act**” means the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated thereunder.

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

1.22. “**Standstill Period**” has the meaning set forth in Section 5.11.1 hereof.

1.23. “**Testing-the-Waters Communication**” means any oral or Written Communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act and Rule 163B thereunder.

1.24. “**U.S. Company Counsel**” means, with respect to New York law and federal securities law, Sichenzia Ross Ference Carmel LLP, with office at 1185 Avenue of the Americas, 31st Floor New York, New York 10036, and with respect to Colorado law, Andrew I. Telsey, P.C.

1.25. “**Written Communication**” has the meaning set forth in Rule 405 under the Securities Act.

1.26. “**Written Testing-the-Waters Communications**” means any Testing-the-Waters Communication that is a Written Communication.

2. **Representations and Warranties of the Company.** The Company hereby represents and warrants to, and agrees with, the Underwriter that the following matters are true and accurate and do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. Any certificate signed by an officer of the Company and delivered to the Underwriter or to counsel for the Underwriter shall be deemed to be a representation and warranty by the Company to the Underwriter as to the matters set forth therein.

2.1. **Registration Statement.** The Company has prepared and filed the Registration Statement with the Commission under the Securities Act. The Commission has declared the Registration Statement effective under the Securities Act and the Company has not as of the date of this Agreement filed a post-effective amendment to the Registration Statement. The Commission has not issued any order suspending the effectiveness of the Registration Statement or any order preventing or suspending the use of the Registration Statement, the Final Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus or any Testing-the-Waters Communication, and no proceedings for such purpose or pursuant to Section 8A of the Securities Act have been initiated, are pending before or, to the Company’s knowledge, threatened by the Commission.

2.1.1. The Registration Statement, at the time it became effective, did not contain, and any post-effective amendment thereto, as of the effective date of such amendment, will not contain, any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with information relating to the Underwriter furnished to the Company in writing by the Underwriter expressly for use in the Registration Statement (including any post-effective amendment thereto), the Pricing Disclosure Package, the Final Prospectus (including any amendments or supplements thereto), any Preliminary Prospectus, any Issuer Free Writing Prospectus or any Testing-the-Waters Communication, it being understood and agreed that the only such information furnished by the Underwriter consists of the information under “Discretionary Accounts,” “Electronic Offer, Sale and Distribution of Securities,” “Stabilization,” and “Passive Market Making” in the Underwriting section of the Registration Statement. (collectively, the “**Underwriter Information**”).

2.1.2. Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective and at the date hereof, complied and will comply in all material respects with the Securities Act.

2.2. **Pricing Disclosure Package.** The Pricing Disclosure Package, as of the Applicable Time, did not, and as of the Closing Date (as defined below) and as of any Additional Closing Date (as defined below), as the case may be, will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with the Underwriter Information.

2.3. **Final Prospectus.**

2.3.1. Each of the Final Prospectus and any amendments or supplements thereto, as of its date, as of the time it is filed with the Commission pursuant to Rule 424(b) under the Securities Act, as of the Closing Date and as of any Additional Closing Date, as the case may be, will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with the Underwriter Information.

2.3.2. Each of the Final Prospectus and any amendments or supplements thereto, at the time it is filed with the Commission pursuant to Rule 424(b) under the Securities Act, as of the Closing Date and as of any Additional Closing Date, as the case may be, will comply in all material respects with the Securities Act.

2.4. **Preliminary Prospectuses.**

2.4.1. Each Preliminary Prospectus, when considered together with any amendments or supplements thereto, as of the time it was filed with the Commission pursuant to Rule 424(a) under the Securities Act, if any, did not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with the Underwriter Information.

2.4.2. Each Preliminary Prospectus, when considered together with any amendments or supplements thereto, at the time it was filed with the Commission pursuant to Rule 424(a) under the Securities Act, if any, complied in all material respects with the Securities Act.

2.5. **Issuer Free Writing Prospectuses.**

2.5.1. Each Issuer Free Writing Prospectus, when considered together with the Preliminary Prospectus accompanying, or delivered prior to the delivery of, such Issuer Free Writing Prospectus, did not, as of the date of such Issuer Free Writing Prospectus, and will not, as of the Closing Date and as of any Additional Closing Date, as the case may be, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with the Underwriter Information.

2.5.2. Each Issuer Free Writing Prospectus, at the time of filing with the Commission, complied or will comply in all material respects with the Securities Act.

2.5.3. The Company has filed, or will file, with the Commission, within the time period specified in Rule 433(d) under the Securities Act, any Free Writing Prospectus it is required to file pursuant to Rule 433(d) under the Securities Act. The Company has made available any Bona Fide Electronic Road Show used by it in compliance with Rule 433(d)(8)(ii) under the Securities Act such that no filing of any "road show" (as defined in Rule 433(h) under the Securities Act) ("**Road Show**") is required in connection with the offering of the Units.

2.5.4. Except for the Issuer Free Writing Prospectuses, if any, set forth in Schedule 2.5.4 hereto and electronic road shows, if any, each furnished to the Underwriter before first use, the Company has not used, authorized the use of, referred to or participated in the planning for use of, and will not, without the prior consent of the Underwriter, use, authorize the use of, refer to or participate in the planning for use of, any Free Writing Prospectus.

2.6. **Testing-the-Waters Communications.** The Company has not (x) alone engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Underwriter or any underwriter that the Company has previously identified to the Underwriter with entities that are qualified institutional buyers within the meaning of Rule 144A under the Act or institutions that are accredited investors within the meaning of Rule 501 under the Act, and (y) authorized anyone other than the Underwriter, or any underwriter that the Company has previously identified to the Underwriter, to engage in Testing-the-Waters Communications.

2.7. **No Other Disclosure Materials.** Other than the Registration Statement, the Pricing Disclosure Package, the Final Prospectus and the Road Show, the Company (including its agents and representatives, other than the Underwriter or any underwriter that the Company has previously identified to the Underwriter, as to which no representation or warranty is given) has not, directly or indirectly, distributed, prepared, used, authorized, approved or referred to, and will not distribute, prepare, use, authorize, approve or refer to, any offering material in connection with the offering and sale of the Units.

2.8. Reserved.

2.9. **Smaller Reporting Company.** From the time of initial filing of the Registration Statement with the Commission (or, if earlier, the first date on which the Company engaged directly or through any person authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and is a “smaller reporting company,” as defined in Rule 12b-2 under the Exchange Act.

2.10. **Due Authorization.** The Company has full right, power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and all action required to be taken for the due and proper authorization, execution and delivery by it of this Agreement and the consummation by it of the transactions contemplated hereby has been duly and validly taken.

2.11. **Underwriting Agreement.** This Agreement has been duly authorized, executed and delivered by the Company and, assuming the due authorization, execution and delivery by the other parties hereto, constitutes the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as (i) the enforcement may be limited by bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors generally or by general equitable principles (whether considered in a proceeding at law or in equity) relating to enforceability and (ii) rights to indemnification and contribution hereunder may be limited by applicable law and public policy considerations.

2.12. **No Material Adverse Change.** Except as otherwise disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus (in each case exclusive of any amendment or supplement thereto), since the date of the most recent financial statements included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus: (i) there has been no material adverse change, or any development that could result in a material adverse change, in or affecting the condition (financial or otherwise), earnings, business, properties, management, financial position, stockholders’ equity, or results of operations, whether or not arising from transactions in the ordinary course of business, of the Company and its subsidiaries, considered as a whole; (ii) there has been no change in the share capital (other than (A) the issuance of Shares upon the exercise or settlement (including any “net” or “cashless” exercises or settlements) of stock options, restricted stock units or warrants described as outstanding, (B) the grant of options and awards under existing equity incentive plans, or (C) the repurchase of shares of Common Stock by the Company, which were issued pursuant to the early exercise of stock options by option holders and are subject to repurchase by the Company, in each case, as described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus), or material change in the short-term debt or long-term debt of the Company or any of its subsidiaries, considered as a whole; and (iii) the Company and its subsidiaries, considered as a whole, have not incurred any material liability or obligation, indirect, direct or contingent (whether or not in the ordinary course of business); nor entered into any transaction or agreement (whether or not in the ordinary course of business) that is material to the Company and its subsidiaries, considered as a whole; and (iv) there has been no dividend or distribution of any kind declared, set aside for payment, paid or made by the Company or, except for dividends paid to the Company or other subsidiaries of the Company, any of its subsidiaries on any class of capital stock or repurchase or redemption by the Company or any of its subsidiaries of any class of capital stock.

2.13. **Organization and Good Standing of the Company and its Subsidiaries.** The Company and each of its subsidiaries have been duly incorporated and are validly existing and in good standing under the laws of their respective jurisdictions of organization, are duly qualified to do business and are in good standing in each jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such qualification, and have all power and authority (corporate and other) necessary to own, lease or hold their respective properties and to conduct the businesses in which they are engaged as described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, except where the failure to be in good standing, to be so qualified or to have such power or authority could not, individually or in the aggregate, have a material adverse effect on the condition (financial or otherwise), earnings, business, properties, management, financial position, stockholders' equity, or results of operations of the Company and its subsidiaries, considered as a whole, or adversely affect the performance by the Company of its obligations under this Agreement (a "**Material Adverse Effect**").

2.14. **Capitalization.** The capitalization of the Company is as set forth in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus under the heading "Capitalization". All of the outstanding capital stock of the Company has been duly authorized and validly issued and is fully paid and non-assessable. The Securities have been duly authorized and, when issued and paid for as contemplated herein, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; the Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company; and all corporate action required to be taken for the authorization, issuance and sale of the Securities has been duly and validly taken. None of the outstanding shares of Common Stock of the Company were issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. Except for the right of participation granted pursuant to the Company's private placement that closed on May 16, 2023 or as disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, there are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to acquire, or instruments convertible into or exchangeable or exercisable for, any Shares of, or other equity interest in, the Company or any of its subsidiaries. All of the outstanding shares of, or other equity interest in, each of the Company's subsidiaries (i) have been duly authorized and validly issued, (ii) are fully paid and non-assessable, and (iii) are owned by the Company, directly or through the Company's subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, charge, claim or restriction on voting or transfer (collectively, "**Liens**").

2.15. **Common Stock Incentive Plans.** With respect to the Common Stock options (the "**Stock Options**") granted pursuant to the Common Stock-based compensation plans of the Company and its subsidiaries (the "**Company Common Stock Incentive Plans**"), (i) each Stock Option intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended (the "**Code**"), so qualifies, (ii) each grant of a Stock Option was duly authorized by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required stockholders approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any), to the Company's knowledge, was duly executed and delivered by each party thereto, (iii) each such grant was made in all material respects in accordance with the terms of the Company Common Stock Incentive Plans, and (iv) each such grant was properly accounted for in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("**GAAP**") in the financial statements (including the related notes) of the Company.

2.16. **No Violation or Default.** Neither the Company nor any of its subsidiaries is: (i) in violation of its charter, by-laws or similar organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant, condition or other obligation contained in any indenture, mortgage, deed of trust, loan agreement, contract, undertaking or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any property, right or asset of the Company or any of its subsidiaries is subject; or (iii) in violation of any law or statute applicable to the Company or any of its subsidiaries or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority having jurisdiction over the Company or any of its subsidiaries, or any of their respective properties or assets, except, in the case of clauses (ii) and (iii) above, for any such default or violation that would not, individually or in the aggregate, have a Material Adverse Effect.

2.17. **No Conflicts.** None of (i) the execution, delivery and performance of this Agreement by the Company, (ii) the issuance, sale and delivery of the Closing Units or the Option Securities, (iii) the application of the proceeds of the offering as described under “Use of Proceeds” in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, or (iv) the consummation of the transactions contemplated herein will: (x) result in any violation of the terms or provisions of the charter, by-laws or similar organizational documents of the Company or any of its subsidiaries; (y) conflict with, result in a breach or violation of, or require the approval of stockholders, members or partners or any approval or consent of any persons under, any of the terms or provisions of, constitute a default under, result in the termination, modification, or acceleration of, or result in the creation or imposition of any lien, charge or encumbrance upon any property, right or asset of the Company or any of its subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement, note agreement, contract, undertaking or other agreement, obligation, condition, covenant or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any property, right or asset of the Company or any of its subsidiaries is subject; or (z) result in the violation of any law, statute, judgment, order, rule, decree or regulation applicable to the Company or any of its subsidiaries of any court, arbitrator, governmental or regulatory authority, agency or body having jurisdiction over the Company or any of its subsidiaries or any of their respective properties or assets.

2.18. **No Consents Required.** No consent, approval, authorization, order, filing, registration, license or qualification of or with any court, arbitrator, or governmental or regulatory authority, agency, or body is required for (i) the execution, delivery and performance by the Company of this Agreement; (ii) the issuance, sale and delivery of the Securities; or (iii) the consummation of the transactions contemplated herein, except for such consents, approvals, authorizations, orders, filings, registrations or qualifications as (x) have already been obtained or made and are still in full force and effect, (y) may be required by FINRA and the Nasdaq Capital Market, and (z) may be required under applicable federal or state securities laws in connection with the purchase, distribution and resale of the Securities by the Underwriter.

2.19. **Independent Accountants.** BF Borgers CPA PC, which expressed its opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) and supporting schedules included in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, is an independent registered public accounting firm with respect to the Company and its subsidiaries within the meaning of the rules and regulations of the Commission and the Public Company Accounting Oversight Board and as required by the Securities Act.

2.20. **Financial Statements and Other Financial Data.** The financial statements (including the related notes thereto), together with the supporting schedules, included in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus comply in all material respects with the applicable requirements of the Securities Act and present fairly the consolidated financial position of the entities to which they relate as of and at the dates indicated and the results of their operations and cash flows for the periods specified. Such financial statements, notes and schedules have been prepared in conformity with GAAP applied on a consistent basis throughout the periods involved, except as may be expressly stated in the notes thereto and except, in the case of unaudited interim financial statements, subject to normal year end audit adjustments and the exclusion of certain footnotes as permitted by the applicable rules of the Commission. The financial data set forth in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus under the captions “Capitalization” present fairly the information set forth therein on a basis consistent with that of the financial statements included in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus.

2.21. **Statistical and Market-Related Data.** The statistical and market-related data included in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus are based on or derived from sources that the Company reasonably and in good faith believes to be accurate and reliable in all material respects.

2.22. **Forward-Looking Statements.** No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) included in the Registration Statement, the Pricing Disclosure Package or the Final Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

2.23. **Legal Proceedings.** Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, (i) there are no legal, governmental or regulatory investigations, actions, demands, claims, suits, arbitrations, inquiries or proceedings (collectively, “**Actions**”) pending to which the Company or any of its subsidiaries is or may be a party or to which any property, right or asset of the Company or any of its subsidiaries is or may be the subject that, individually or in the aggregate, if determined adversely to the Company or any of its subsidiaries, could have a Material Adverse Effect; and (ii) to the knowledge of the Company, no such Actions are threatened or contemplated by any governmental or regulatory authority or by others.

2.24. **Labor Disputes.** No labor disturbance by or dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is threatened or contemplated that could, individually or in the aggregate, have a Material Adverse Effect.

2.25. **Intellectual Property Rights.** (i) The Company and its subsidiaries own or have the right to use all patents, patent applications, trademarks, service marks, trade names, and other source indicators and registrations and applications for registration thereof, domain name registrations, copyrights and registrations and applications for registration thereof, technology and know-how, trade secrets, and all other intellectual property and related proprietary rights (collectively, “**Intellectual Property Rights**”) necessary to conduct their respective businesses; (ii) other than as disclosed in the Prospectus, neither the Company nor any of its subsidiaries has received any notice of infringement, misappropriation or other conflict with (and neither the Company nor any of its subsidiaries is otherwise aware of any infringement, misappropriation or other conflict with) the Intellectual Property Rights of any other person, except for such infringement, misappropriation or other conflict as could not have a Material Adverse Effect; and (iii) to the knowledge of the Company, the Intellectual Property Rights of the Company and its subsidiaries are not being infringed, misappropriated or otherwise violated by any person.

2.26. **Licenses and Permits.** (i) The Company and its subsidiaries possess such valid and current certificates, authorizations, approvals, licenses and permits (collectively, “**Authorizations**”) issued by, and have made all declarations, amendments, supplements and filings with, the appropriate state, federal or foreign regulatory agencies or bodies necessary to own, lease and operate their respective properties and to conduct their respective businesses as set forth in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus; (ii) all such Authorizations are valid and in full force and effect and the Company and its subsidiaries are in compliance with the terms and conditions of all such Authorizations; and (iii) neither the Company nor any of its subsidiaries has received notice of any revocation, termination or modification of, or non-compliance with, any such Authorization or has any reason to believe that any such Authorization will not be renewed in the ordinary course, except where, in the case of clauses (i), (ii) and (iii), the failure to possess, make or obtain such Authorizations (by possession, declaration or filing) could not, individually or in the aggregate, have a Material Adverse Effect.

2.27. **Title to Property.** The Company and its subsidiaries have good and marketable title to, or have valid and enforceable rights to lease or otherwise use, all items of real property and personal property (other than with respect to Intellectual Property Rights, which is addressed exclusively in Section 2.25) that are material to the respective businesses of the Company and its subsidiaries, in each case, free and clear of all liens, encumbrances, claims, and defects and imperfections of title, except such liens, encumbrances, claims, defects and imperfections as (i) are disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, or (ii) do not materially affect the value of such property and do not materially interfere with the use made or proposed to be made of such property by the Company and its subsidiaries. The Company and its subsidiaries have good and marketable title to, or have valid and enforceable rights to lease or otherwise use, all items of real and personal property that are material to the respective businesses of the Company and its subsidiaries, in each case, free and clear of all liens, encumbrances, claims and defects and imperfections of title, except such liens, encumbrances, claims, defects and imperfections as (i) are disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, or (ii) do not materially affect the value of such property and do not materially interfere with the use made or proposed to be made of such property by the Company and its subsidiaries. All items of real and personal property held under lease by the Company and its subsidiaries are held under valid, subsisting and enforceable leases, with such exceptions as do not materially interfere with the use made or proposed to be made of such property by the Company and its subsidiaries.

2.28. **Taxes.** The Company and each of its subsidiaries have filed all federal, state, local and foreign tax returns required to be filed through the date hereof or have timely requested extensions thereof and have paid all taxes required to be paid thereon (except as currently being contested in good faith and for which reserves required by GAAP have been created in the financial statements of the Company). The charges, accruals and reserves in respect of any income and other tax liability in the financial statements of the Company referred to in Section 2.20 are adequate, in accordance with GAAP principles, to meet any assessments for any taxes of the Company accruing through the end of the last period specified in such financial statements.

2.29. **Solvency.** Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Closing Units hereunder, (i) the fair saleable value of the Company's assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company's assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. The Registration Statement sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

2.30. **Investment Company Act.** Neither the Company nor any of its subsidiaries is or, after giving effect to the offer and sale of the Securities and the application of the proceeds therefrom as described under "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, will be required to register as an "investment company" (as defined in the Investment Company Act).

2.31. **Insurance.** The Company and its subsidiaries are insured by recognized, financially sound institutions in such amounts, with such amounts, with such deductibles and covering such losses and risks as the Company reasonably believes to be adequate for the conduct of their respective businesses and the value of their respective properties and as is prudent and customary for companies engaged in similar businesses in similar industries. All insurance policies and fidelity or surety bonds insuring the Company and its subsidiaries or their respective businesses, assets, employees, officers and directors are in full force and effect; the Company and its subsidiaries are in compliance with the terms of such policies in all material respects; neither the Company nor any of its subsidiaries has received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required to be made in order to continue such insurance; and neither the Company nor any of its subsidiaries has been refused any insurance coverage sought or applied for. There are no claims by the Company or any of its subsidiaries under any such policy as to which any insurer is denying liability or defending under a reservation of rights clause; and neither the Company nor any of its subsidiaries has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that could not have a Material Adverse Effect.

2.32. **No Stabilization or Manipulation.** None of the Company, nor its Affiliates, or, to the knowledge of the Company, any person acting on its or any of their behalf (other than the Underwriter, as to which no representation or warranty is given) has taken, directly or indirectly, any action designed to or that has constituted or that could reasonably be expected to cause or result in the stabilization or manipulation of the price of any securities of the Company. The Company acknowledges that the Underwriter may engage in passive market making transactions in the Common Stock on the Nasdaq Capital Market (the "**Exchange**") in accordance with Regulation M under the Exchange Act ("**Regulation M**").

2.33. **Compliance with the Sarbanes-Oxley Act.** The Company and, to the knowledge of the Company, its officers and directors, in their capacities as such, are and have been in compliance with all applicable provisions of the Sarbanes-Oxley Act.

2.34. **Accounting Controls.** The Company and its subsidiaries maintain systems of “internal control over financial reporting” (as defined in Rule 13a-15(f) of the Exchange Act) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. The Company and its subsidiaries maintain internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management’s general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Other than as disclosed in the Registration Statement, the Company maintains a system of internal control over financial reporting and the Company is not aware of any other material weaknesses in its internal control over financial reporting (whether or not remediated). Other than as disclosed in the Registration Statement, since the date of the most recent balance sheet included in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, (x) the Company’s auditors and the board of directors of the Company have not been advised of (A) any new significant deficiencies or material weaknesses in the design or operation of the internal control over financial reporting of the Company and its subsidiaries which could adversely affect the Company’s ability to record, process, summarize, and report financial data; or (B) any fraud, whether or not material, that involves management or other employees who have a role in the internal control over financial reporting of the Company or its subsidiaries; and (y) there have been no significant changes in the internal control over financial reporting of the Company or its subsidiaries or in other factors that could significantly affect, such internal control over financial reporting, including any corrective actions with regard to significant deficiencies or material weaknesses, since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus.

2.35. **Disclosure Controls and Procedures.** The Company and its subsidiaries have established and maintain disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that are designed to comply with the requirements of the Exchange Act; such disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company and its subsidiaries in the reports they file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission’s rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company’s management as appropriate to allow timely decisions regarding required disclosure; and such disclosure controls and procedures are effective to perform the functions for which they were established.

2.36. **Compliance with Environmental Laws.** The Company and each of its subsidiaries (i) are, and at all times prior hereto were, in compliance with all Environmental Laws (as defined below) applicable to such entity, which compliance includes, without limitation, obtaining, maintaining and complying with all permits and authorizations and approvals required by Environmental Laws to conduct their respective businesses; and (ii) have not received notice or otherwise have knowledge of any actual or alleged violation of Environmental Laws, or of any actual or potential liability for or other obligation concerning the presence, disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, and, except as described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, (x) there are no proceedings that are pending, or known to be contemplated, against the Company or any of its subsidiaries under Environmental Laws, other than such proceedings regarding which would not, individually or in the aggregate, have a Material Adverse Effect; (y) to the knowledge of the Company, none of the Company or any of its subsidiaries is aware of any issues regarding compliance with Environmental Laws, including any pending or proposed Environmental Laws, or liabilities or other obligations under Environmental Laws or concerning hazardous or toxic substances or wastes, pollutants or contaminants, that could reasonably be expected to have a material effect on the capital expenditures, earnings or competitive position of the Company and its subsidiaries; and (z) none of the Company or any of its subsidiaries anticipates material capital expenditures relating to Environmental Laws. As used herein, the term “**Environmental Laws**” means any laws, regulations, ordinances, rules, orders, judgments, decrees, permits or other legal requirements of any governmental authority, including, without limitation, any international, foreign, national, state, provincial, regional, or local authority, relating to pollution, the protection of human health or safety, the environment, or natural resources, or to the use, handling, storage, manufacturing, transportation, treatment, discharge, disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants.

2.37. **ERISA.** Each “employee benefit plan” (within the meaning of Section 3(3) of the Employee Retirement Security Act of 1974, as amended (“**ERISA**”)) for which the Company or any member of its “Controlled Group” (defined as any organization which is a member of a controlled group of corporations within the meaning of Section 414 of the Code) would have any liability (each, a “**Plan**”) complies in form with the requirements of all applicable statutes, rules and regulations including ERISA and the Code, and has been maintained and administered in substantial compliance with its terms and with the requirements of all applicable statutes, rules and regulations including ERISA and the Code; (ii) with respect to each Plan subject to Title IV of ERISA or Section 302 of ERISA or Section 412 and 430 of the Code (A) no “reportable event” (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur, (B) no failure to satisfy the minimum funding standard (within the meaning of Section 302 of ERISA or Section 412 and 430 of the Code), whether or not waived, has occurred or is reasonably expected to occur, (C) the fair market value of the assets under each Plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan) and (D) neither the Company or any member of its Controlled Group has incurred, or reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guaranty Corporation in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan”, within the meaning of Section 4001(a)(3) of ERISA); (iii) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification; and (iv) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan excluding transactions to which a statutory or administrative prohibited transaction exemption applies.

2.38. **FDA.** As to each product subject to the jurisdiction of the U.S. Food and Drug Administration (“**FDA**”) under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder (“**FDCA**”) that is manufactured, packaged, labeled, tested, 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 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 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.

2.39. **Related Party Transactions.** Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, no relationship, direct or indirect, exists between or among the Company or any of its subsidiaries, on the one hand, and the directors, officers, stockholders, other Affiliates, customers or suppliers of the Company or any of its subsidiaries, on the other hand, that would be required by the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus.

2.40. **No Unlawful Contributions or Other Payments.** Neither the Company nor any of its subsidiaries, nor any director, officer of the Company, nor, to the knowledge of the Company, any agent, employee, Affiliate or other person associated with or acting on behalf of the Company or any of its subsidiaries has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government or regulatory official or employee; (iii) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment; or (iv) violated or is in violation of any provision of (y) the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “**FCPA**”), or (z) any non-U.S. anti-bribery or anti-corruption statute or regulation. The Company and its subsidiaries have instituted and maintain and enforce policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

2.41. **Compliance with Anti-Money Laundering Laws.** The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with all applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable anti-money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency (collectively, the “**Anti-Money Laundering Laws**”); and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

2.42. **Compliance with OFAC.** Neither the Company nor any of its subsidiaries nor any director, officer of the Company, nor, to the knowledge of the Company, any agent, employee or Affiliate of the Company or any of its subsidiaries is an individual or entity (an “**OFAC Person**”), or is owned or controlled by an OFAC Person, that is currently the subject or target of any sanctions administered or enforced by the U.S. government (including, without limitation, the Office of Foreign Assets Control of the U.S. Treasury Department (“**OFAC**”) or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, His Majesty’s Treasury, or other relevant sanctions authority (collectively, “**Sanctions**”), nor is the Company or any of its subsidiaries located, organized or resident in a country or territory that is the subject or the target of Sanctions, including, without limitation, Crimea, Cuba, Iran, North Korea, Sudan and Syria (each, a “**Sanctioned Country**”); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other OFAC Person (i) to fund or facilitate any activities of or business with any OFAC Person that, at the time of such funding or facilitation, is the subject or the target of Sanctions, (ii) to fund or facilitate any activities or business in any Sanctioned Country or (iii) in any other manner that will result in a violation by any OFAC Person (including any OFAC Person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions. Since the Company’s inception, the Company and its subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any OFAC Person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

2.43. **No Registration Rights.** Except as described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, there are no contracts, agreements or understandings between the Company or any of its subsidiaries, on the one hand, and any person, on the other hand, granting such person any rights to require the Company or any of its subsidiaries to file a registration statement under the Securities Act with respect to any securities of the Company or any of its subsidiaries owned or to be owned by such person or to require the Company or any of its subsidiaries to include such securities in any securities to be registered pursuant to any registration statement to be filed by the Company or any of its subsidiaries under the Securities Act.

2.44. **Subsidiaries.** The subsidiaries of the Company shall be referred to hereinafter each as a “**Subsidiary**” and collectively as “**Subsidiaries**.” The Subsidiaries of the Company are as set forth in Exhibit 23.1 to the Registration Statement and such Subsidiaries are the only “significant subsidiaries” (as defined under Rule 1.02(w) of Regulation S-X under the Securities Act) of the Company (the “**Significant Subsidiaries**”).

2.45. **No Restrictions on Subsidiaries.** Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, no Subsidiary of the Company is currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on such Subsidiary’s share capital or similar ownership interest, from repaying to the Company any loans or advances to such Subsidiary from the Company or from transferring any of such Subsidiary’s properties or assets to the Company or any other Subsidiary of the Company.

2.46. **Exchange Listing.** The Common Stock is listed on the Exchange, and the Company has taken no action designed to, or likely to have the effect of, delisting the Common Stock from the Exchange, nor has the Company received any notification that the Exchange is contemplating terminating such listing, except as described in the Registration Statement, the Disclosure Package and the Prospectus.

2.47. **Exchange Act Registration.** The Common Stock is registered pursuant to Section 12(b) under the Exchange Act. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration.

2.48. **Prior Securities Transactions.** No securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by or under common control with the Company, except as disclosed in the Registration Statement, the Disclosure Package and the Prospectus.

2.49. **Application of Takeover Protections.** 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 certificate of incorporation (or similar charter documents) or the laws of its state of incorporation that is or could become applicable as a result of the Underwriter and the Company fulfilling their obligations or exercising their rights hereunder (including documents incorporated herein by reference or attached hereto).

2.50. **D&O Questionnaires.** To the Company's knowledge, all information contained in the questionnaires (the "**Questionnaires**") completed by each of the Company's directors, officers and beneficial holders of 5% or more of the Company's Common Stock immediately prior to the Offering as supplemented by all information concerning the Company's directors, officers and principal stockholders as described in the Registration Statement, the Disclosure Package and the Prospectus, provided to the Underwriter is true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in the Questionnaires to become inaccurate and incorrect in any material respect.

2.51. **No Integrated Offering.** Neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Closing Units to be integrated with prior offerings by the Company for purposes of any applicable stockholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

2.52. **Litigation; Governmental Proceedings.** There is no material action, suit, proceeding, inquiry, arbitration, investigation, litigation or governmental proceeding pending or, to the Company's knowledge, threatened against, or involving the Company, any of its Subsidiaries or, to the Company's knowledge, any executive officer or director which has not been disclosed in the Registration Statement, the Disclosure Package and the Prospectus which is required to be disclosed.

2.53. **FINRA Matters.**

2.53.1. **No Broker's Fees.** Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, neither the Company nor any of its subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against any of them or the Underwriter for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Securities.

2.53.2. **Payments Within Six (6) Months.** Except as described in the Registration Statement, the Disclosure Package and the Prospectus, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the six (6) months prior to the initial filing of the Registration Statement, other than the payment to the Underwriter as provided hereunder in connection with the Offering.

2.53.3. **Use of Proceeds.** None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

2.53.4. **FINRA Affiliation.** There is no (i) officer or director of the Company, (ii) to the Company's knowledge, any beneficial owner of 10% or more of any class of the Company's securities or (iii) to the Company's knowledge, any beneficial owner of the Company's unregistered equity securities which were acquired during the 180-day period immediately preceding the filing of the Registration Statement that is an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

2.53.5. **Information.** All information provided by the Company in its FINRA questionnaire to Underwriter counsel specifically for use by Underwriter counsel in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

3. **Representations and Warranties of the Underwriter.** The Underwriter represents and warrants to, and agrees with, the Company:

3.1. **No Testing-the-Waters Communications.** The Underwriter has not (i) alone engaged in any Testing-the-Waters Communication and (ii) authorized anyone to engage in Testing-the-Waters Communications. The Underwriter has not distributed, or authorized anyone else to distribute, any Written Testing-the-Waters Communications.

4. **Purchase and Resale.**

4.1. **Agreements to Sell and Purchase.** On the basis of the representations, warranties and covenants herein and subject to the conditions herein and any adjustments made in accordance with Section 4.3 hereof,

4.1.1. The Company agrees to issue and sell the Closing Units to the Underwriter; and

4.1.2. The Underwriter agrees to purchase from the Company the number of Closing Units set forth opposite the Underwriter's name in Schedule 4.1.2 hereto, subject to such adjustments as the Underwriter in its sole discretion shall make to eliminate any sales or purchases of fractional Shares.

4.1.3. The Closing Units are to be offered initially to the public at the offering price set forth on the cover page of the Final Prospectus (the "**Public Offering Price**"). The purchase price per Closing Common Unit to be paid by the Underwriter to the Company shall be \$0.1274 per Closing Common Unit (the "**Purchase Price**"), which represents the Public Offering Price for each Closing Common Unit less an underwriting discount of 8.0% and a non-accountable expense allowance of 1.0%. The purchase price per Closing Pre-funded Unit to be paid by the Underwriter to the Company shall be \$0.12649 per Closing Pre-funded Unit, which represents the Public Offering Price for each Closing Pre-funded Unit less an underwriting discount of 8.0% and a non-accountable expense allowance of 1.0%.

4.1.4. Payment for the Closing Units (the "**Closing Units Payment**") shall be made by wire transfer in immediately available funds to the accounts specified by the Company to the Underwriter at the offices of Kaufman & Canoles, P.C. at 10:00 a.m., ET, on February 15, 2024 or at such other place on the same or such other date and time, not later than the fifth (5th) Business Day thereafter, as the Underwriter and the Company may agree upon in writing (the "**Closing Date**"). The Closing Units Payment shall be made against delivery of the Closing Units to be purchased on the Closing Date to the Underwriter with any transfer taxes, stamp duties and other similar taxes payable in connection with the sale of the Closing Units duly paid by the Company.

4.2. **Over-Allotment Option.**

4.2.1. On the basis of the representations, warranties and covenants herein and subject to the conditions herein, the Underwriter is hereby granted an option (the “**Over-Allotment Option**”) to purchase, in the aggregate, up to 10,714,285 additional shares of Common Stock, representing 15.0% of the Closing Shares and Pre-funded Warrants sold in the offering from the Company (the “**Option Shares**”) and/or up to 1,071,429 Series A Warrants to purchase an aggregate of an additional 1,071,429 shares of Common Stock, representing 15.0% of the Closing Series A Warrants sold in the offering from the Company; and/or 2,142,857 Series B Warrants to purchase an aggregate of an additional 2,142,857 shares of Common Stock, representing 15.0% of the Closing Series B Warrants sold in the offering from the Company (the “**Option Warrants**”). The purchase price to be paid per Option Share shall be equal to the purchase price per Closing Unit set forth in Section 4.1 hereof (less \$0.01 attributable to each whole Option Warrant included in the Closing Unit) and the purchase price to be paid per Option Warrant shall be equal to \$0.01 per Option Warrant. The Over-allotment Option is, at the Underwriter’s sole discretion, for Option Shares and Option Warrants together, solely Option Shares, solely Option Warrants, or any combination thereof (each, an “**Option Security**” and collectively, the “**Option Securities**”). The Closing Units and the Option Securities are collectively referred to as the “**Securities**”. The Securities and the shares of Common Stock issuable upon exercise of the Pre-funded Warrants and the Warrants (the “**Underlying Shares**”), are collectively referred to as the “**Public Securities**.” The Public Securities shall be issued directly by the Company and shall have the rights and privileges described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The Closing Warrants and the Option Warrants, if any, shall be issued pursuant to, and shall have the rights and privileges set forth in, the form of Warrant, and the Closing Pre-funded Warrants shall be issued pursuant to, and shall have the rights and privileges set forth in, the form of Pre-funded Warrant. The offering and sale of the Public Securities is herein referred to as the “**Offering**”.

4.2.2. upon an exercise of the Over-Allotment Option and subject to the terms and conditions herein, the Company agrees to issue and sell the Option Securities to the Underwriter;

4.2.3. The Underwriter may exercise the Over-Allotment Option at any time in whole, or from time to time in part, on or before the forty-fifth (45th) day following the date of the Final Prospectus, by written notice from the Underwriter to the Company (the “**Over-Allotment Exercise Notice**”). The Underwriter must give the Over-Allotment Exercise Notice to the Company at least two (2) Business Days prior to the Closing Date or the applicable Additional Closing Date, as the case may be. The Underwriter may cancel any exercise of the Over-Allotment Option at any time prior to the Closing Date or the applicable Additional Closing Date, as the case may be, by giving written notice of such cancellation to the Company.

4.2.4. The Over-Allotment Exercise Notice shall set forth each of the following:

4.2.4.1 the aggregate number of Option Securities as to which the Over-Allotment Option is being exercised.

4.2.4.2 the Over-Allotment Option Purchase Price.

4.2.4.3 the names and denominations in which the Option Securities are to be registered.

4.2.4.4 the applicable Additional Closing Date, which may be the same date and time as the Closing Date but shall not be earlier than the Closing Date nor later than the tenth (10th) full Business Day after the date of the Over-Allotment Exercise Notice.

4.2.5. Payment for the Option Securities (the “**Option Securities Payment**”) shall be made by wire transfer in immediately available funds to the accounts specified by the Company to the Underwriter at the offices of Kaufman & Canoles, P.C. at 10:00 a.m. ET on the date specified in the corresponding Over-Allotment Exercise Notice, or at such other place on the same or such other date and time, not later than the fifth Business Day thereafter, as the Underwriter and the Company may agree upon in writing (an “**Additional Closing Date**”). The Option Securities Payment shall be made against delivery to the Underwriter for the respective accounts of the Underwriter of the Option Securities to be purchased on any Additional Closing Date, with any transfer taxes, stamp duties and other similar taxes payable in connection with the sale of the Option Securities duly paid by the Company. Delivery of the Option Securities shall be made through the facilities of DTC unless the Underwriter shall otherwise instruct.

4.3. **Public Offering.** The Company understands that the Underwriter intends to make a public offering of the Units as soon after the effectiveness of this Agreement as in the judgment of the Underwriter is advisable, and initially to offer the Units on the terms set forth in the Final Prospectus. The Company acknowledges and agrees that the Underwriter may offer and sell Units to or through any Affiliate of the Underwriter.

5. **Covenants of the Company.** The Company hereby covenants and agrees with the Underwriter as follows:

5.1. **Filings with the Commission.** The Company will:

5.1.1. prepare and file the Final Prospectus (in a form approved by the Underwriter and containing the Rule 430A Information) with the Commission in accordance with and within the time periods specified by Rules 424(b) and 430A under the Securities Act.

5.1.2. file any Issuer Free Writing Prospectus with the Commission to the extent required by Rule 433 under the Securities Act.

5.1.3. file with the Commission such reports as may be required by Rule 463 under the Securities Act.

5.2. **Notice to the Underwriter.** The Company will advise the Underwriter promptly, and confirm such advice in writing:

5.2.1. when the Registration Statement has become effective.

5.2.2. when the Final Prospectus has been filed with the Commission.

5.2.3. when any amendment to the Registration Statement has been filed or becomes effective.

5.2.4. when any Rule 462(b) Registration Statement has been filed with the Commission.

5.2.5. when any supplement to the Final Prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication or any amendment to the Final Prospectus has been filed or distributed.

5.2.6. of (x) any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Final Prospectus, (y) the receipt of any comments from the Commission relating to the Registration Statement or (z) any other request by the Commission for any additional information, including, but not limited to, any request for information concerning any Testing-the-Waters Communication.

5.2.7. of (x) the issuance by the Commission of any order suspending the effectiveness of the Registration Statement or preventing or suspending the use of the Registration Statement, the Pricing Disclosure Package, the Final Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication or (y) the initiation or, to the knowledge of the Company, threatening of any proceeding for that purpose or pursuant to Section 8A of the Securities Act.

5.2.8. of the occurrence of any event or development within the Prospectus Delivery Period as a result of which, the Final Prospectus, the Pricing Disclosure Package, any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication as then amended or supplemented would include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Final Prospectus, the Pricing Disclosure Package, any such Issuer Free Writing Prospectus or any such Written Testing-the-Waters Communication is delivered to a purchaser, not misleading.

5.2.9. of the issuance by any governmental or regulatory authority or any order preventing or suspending the use of any of the Registration Statement, the Pricing Disclosure Package, the Final Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus or any Testing-the-Waters Communication or the initiation or threatening for that purpose.

5.2.10. of the receipt by the Company of any notice with respect to any suspension of the qualification of the Units for offer and sale in any jurisdiction or the initiation or, to the knowledge of the Company, threatening of any proceeding for such purpose.

5.3. **Ongoing Compliance.**

5.3.1. If during the Prospectus Delivery Period:

5.3.1.1 any event or development shall occur or condition shall exist as a result of which the Final Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Final Prospectus is delivered to a purchaser, not misleading, the Company will, as soon as reasonably possible, notify the Underwriter thereof and forthwith prepare and, subject to Section 5.4 hereof, file with the Commission and furnish, at its own expense, to the Underwriter and to such dealers as the Underwriter may designate such amendments or supplements to the Final Prospectus as may be necessary so that the statements in the Final Prospectus as so amended or supplemented will not, in the light of the circumstances existing when the Final Prospectus is delivered to a purchaser, be misleading; or

5.3.1.2 it is necessary to amend or supplement the Final Prospectus to comply with applicable law, the Company will, as soon as reasonably possible, notify the Underwriter thereof and forthwith prepare and, subject to Section 5.4 hereof, file with the Commission and furnish, at its own expense, to the Underwriter and to such dealers as the Underwriter may designate such amendments or supplements to the Final Prospectus as may be necessary so that the Final Prospectus will comply with applicable law; and

5.3.2. if at any time prior to the Closing Date or any Additional Closing Date, as the case may be:

5.3.2.1 any event or development shall occur or condition shall exist as a result of which the Pricing Disclosure Package as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Pricing Disclosure Package is delivered to a purchaser, not misleading, the Company will immediately notify the Underwriter thereof and forthwith prepare and, subject to Section 5.4 hereof, file with the Commission (to the extent required) and furnish, at its own expense, to the Underwriter and to such dealers as the Underwriter may designate such amendments or supplements to the Pricing Disclosure Package as may be necessary so that the statements in the Pricing Disclosure Package as so amended or supplemented will not, in the light of the circumstances existing when the Pricing Disclosure Package is delivered to a purchaser, be misleading; or

5.3.2.2 it is necessary to amend or supplement the Pricing Disclosure Package to comply with applicable law, the Company will immediately notify the Underwriter thereof and forthwith prepare and, subject to Section 5.4 hereof, file with the Commission (to the extent required) and furnish, at its own expense, to the Underwriter and to such dealers as the Underwriter may designate such amendments or supplements to the Pricing Disclosure Package as may be necessary so that the Pricing Disclosure Package will comply with applicable law.

5.4. **Amendments, Supplements and Issuer Free Writing Prospectuses.** Before (i) using, authorizing, approving, referring to, distributing or filing any Issuer Free Writing Prospectus, (ii) filing (x) any Rule 462(b) Registration Statement or (y) any amendment or supplement to the Registration Statement or the Final Prospectus, or (iii) distributing any amendment or supplement to the Pricing Disclosure Package or the Final Prospectus, the Company will furnish to the Underwriter and counsel for the Underwriter a copy of the proposed Issuer Free Writing Prospectus, Rule 462(b) Registration Statement or other amendment or supplement for review and will not use, authorize, refer to, distribute or file any such Issuer Free Writing Prospectus or Rule 462(b) Registration Statement, or file or distribute any such proposed amendment or supplement (A) to which the Underwriter objects in a timely manner and (B) which is not in compliance with the Securities Act. The Company will, pursuant to reasonable procedures developed in good faith, retain copies of each Issuer Free Writing Prospectus that is not filed with the Commission in accordance with Rule 433 under the Securities Act.

5.5. **Delivery of Copies.** The Company will, upon request of the Underwriter, deliver, without charge, (i) to the Underwriter, three signed copies of the Registration Statement as originally filed and each amendment thereto, in each case, including all exhibits and consents filed therewith; and (ii) to each Underwriter (A) a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits and consents) and (B) during the Prospectus Delivery Period, as many copies of the Final Prospectus (including all amendments and supplements thereto and each Issuer Free Writing Prospectus) as the Underwriter may reasonably request.

5.6. **Blue Sky Compliance.** The Company will use its best efforts, with the Underwriter's cooperation, if necessary, to qualify or register (or to obtain exemptions from qualifying or registering) the Units for offer and sale under the securities or Blue Sky laws of such jurisdictions as the Underwriter shall reasonably request and will use its reasonable best efforts, with the Underwriter's cooperation, if necessary, to continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Units; provided that the Company shall not be required to (i) qualify as a foreign corporation or other entity or as a dealer in securities in any such jurisdiction where it would not otherwise be required to so qualify, (ii) file any general consent to service of process in any such jurisdiction or (iii) subject itself to taxation in any such jurisdiction if it is not otherwise so subject.

5.7. **Earning Statement.** The Company will make generally available to its security holders and the Underwriter as soon as practicable an earning statement that satisfies the provisions of Section 11(a) of the Securities Act and Rule 158 under the Securities Act covering a period of at least 12 months beginning after the "effective date" (as defined in Rule 158 under the Securities Act) of the Registration Statement; provided that the Company will be deemed to have furnished such statement to its security holders and the Underwriter to the extent it is filed on the Commission's Electronic Data Gathering, Analysis and Retrieval system ("**EDGAR**").

5.8. **Stockholder Approval.** The Company shall (a) hold a special meeting of stockholders (which may also be at the annual meeting of stockholders) at the earliest practicable date after the date hereof, or (b) obtain by written consent the Stockholder Approval, but in no event later than twenty (20) days (which time period, for the avoidance of doubt, does not include the time required to file and mail an information statement on Schedule 14C with respect to such written consent as required under the Exchange Act), after the Closing Date for the purpose of obtaining Stockholder Approval (as defined below), if required to effect the purpose thereof, with the recommendation of the Board that such proposal be approved, and the Company shall, if applicable, solicit proxies from its stockholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Stockholder Approval, and officers, directors and stockholders subject to Lock-Up Agreement pursuant to Section 8.9 shall, if applicable, cast their proxies in favor of such proposal. If the Company does not obtain Stockholder Approval at the first meeting or by written consent, the Company shall call a meeting every twenty (20) days thereafter to seek Stockholder Approval until the earlier of the date Stockholder Approval is obtained or the Warrants are no longer outstanding. "**Stockholder Approval**" has the meaning set forth in the Warrants.

5.9. **Reverse Stock Split.** The Company shall effect a reverse stock split within seven (7) business days after the date that is the earlier of the date on which (x) the first meeting of stockholders to obtain Stockholder Approval is held or (y) the items to be approved under the Stockholder Approval have been approved in accordance with the applicable laws and corporate governing documents of the Company (including, if applicable and without limitation, the filing and mailing of an information statement on Schedule 14C) (the "**First Reverse Split Date**"). No reverse stock split shall be effectuated before the First Reverse Split Date, except if the consent has been obtained from purchasers of a majority of the Closing Units. On or before the date of this Agreement, the Company's Chief Executive Officer shall have delivered to the Underwriter an executed copy of an irrevocable consent to seek and vote his shares in favor of those corporate actions described in Section 5.8 and Section 5.9 hereof.

5.10. **Use of Proceeds.** The Company shall apply the net proceeds from the sale of the Closing Units and the Option Securities in the manner described under the caption "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus.

5.11. **Clear Market.**

5.11.1. For a period of ninety (90) days after the later of the date of the Closing Date or the date of Stockholder Approval (the "**Standstill Period**"), the Company will not (x) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file with the Commission a registration statement under the Securities Act relating to, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (y) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the shares of Common Stock or any such other securities, whether any such transaction described in clause (x) or (y) above is to be settled by delivery of shares of Common Stock or such other securities, in cash or otherwise, without the prior written consent of the Underwriter.

5.11.2. The restrictions contained in Section 5.11.1 hereof shall not apply to: (A) the Units, (B) any shares of Common Stock issued under Company Common Stock Incentive Plans or warrants issued by the Company, in each case, described as outstanding in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, (C) any options and other awards granted under a Company Common Stock Incentive Plan as described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit any registration statement in connection therewith to be filed publicly or declared effective during the Standstill Period (D) the amendment of a Company Common Stock Incentive Plan as described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus, (E) the filing by the Company of any registration statement on Form S-8 or a successor form thereto relating to a Company Common Stock Incentive Plan described in the Registration Statement, the Pricing Disclosure Package and the Final Prospectus and (F) shares of Common Stock or other securities issued pursuant to acquisitions or strategic transactions (whether by merger, consolidation, purchase of equity, purchase of assets, reorganization or otherwise) approved by a majority of the disinterested directors of the Company, provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the Standstill Period, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities; provided, however, that any such shares of Common Stock or other securities issued or granted pursuant to clauses (B), (C) and (F) during the Standstill Period shall not be saleable in the public market until the expiration of the Standstill Period.

5.11.3. If the Underwriter, in its sole discretion, agrees to release or waive the restrictions set forth in any Lock-Up Agreement as described in Section 8.9 and provides the Company with notice of the impending release or waiver substantially in the form of **Exhibit 5.11.3.1** hereto at least three (3) Business Days before the effective date of the release or waiver, then the Company agrees to announce the impending release or waiver by a press release substantially in the form of **Exhibit 5.11.3.2** hereto through a major news service at least two (2) Business Days before the effective date of the release or waiver.

5.11.4. For a period of ninety (90) days after the later of the date of the Closing Date or the date of Stockholder Approval, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. “**Variable Rate Transaction**” means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive, additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon, and/or varies with, the trading prices of or quotations for the Common Stock at any time after the initial issuance of such debt or equity securities or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an “at-the-market offering”, whereby the Company may issue securities at a future determined price regardless of whether shares pursuant to such agreement have actually been issued and regardless of whether such agreement is subsequently canceled. The Underwriter shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

5.11.5. Notwithstanding the foregoing, this Section 5.11 shall not apply to an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance.

5.12. **No Stabilization or Manipulation.** None of the Company, its Affiliates or any person acting on its or any of their behalf (other than the Underwriter, as to which no covenant is given) will take, directly or indirectly, any action designed to or that constitutes or that could reasonably be expected to cause or result in the stabilization or manipulation of the price of any securities of the Company. The Company acknowledges that the Underwriter may engage in passive market making transactions in the Common Stock on the Exchange in accordance with Regulation M.

5.13. **Investment Company Act.** The Company shall not invest, or otherwise use the proceeds received by the Company from the sale of the Closing Units or the Option Securities in such a manner as would require the Company or any of its subsidiaries to register as an “investment company” (as defined in the Investment Company Act) under the Investment Company Act.

5.14. **Transfer Agent.** For the period of two years from the date of this Agreement, the Company shall engage and maintain, at its expense, a registrar and transfer agent for the Common Stock.

5.15. **Reports.** For the period of two years from the date of this Agreement, the Company will furnish to the Underwriter, as soon as they are available, copies of all reports or other communications (financial or other) furnished to holders of the Common Stock, and copies of any reports and financial statements furnished to or filed with the Commission; provided that the Company will be deemed to have furnished such reports and financial statements to the Underwriter to the extent they are filed on the Commission's Electronic Data Gathering, Analysis and Retrieval system.

5.16. **Right of First Refusal.** The Company agrees that, if, for the period ending three (3) years after the Closing Date, the Company or any of its subsidiaries: (a) decides to finance or refinance any indebtedness, the Underwriter (or any affiliate designated by the Underwriter) shall have the right to act as sole book-runner, sole manager, sole placement agent or sole agent with respect to such financing or refinancing; or (b) decides to raise funds by means of a public offering (including at-the-market facility) or a private placement or any other capital raising financing of equity, equity-linked or debt securities, the Underwriter (or any affiliate designated by the Underwriter) shall have the right to act as sole book-running manager, sole underwriter or sole placement agent for such financing. If the Underwriter or one of its affiliates decides to accept any such engagement, the agreement governing such engagement (each, a "**Subsequent Transaction Agreement**") will contain, among other things, provisions for customary fees for transactions of similar size and nature, but in no event will the fees be less than those outlined herein, and the provisions of this Agreement, including indemnification, that are appropriate to such a transaction. Notwithstanding the foregoing, the decision to accept the Company's engagement under this Section 5.16 shall be made by the Underwriter or one of its affiliates, by a written notice to the Company, within ten (10) days of the receipt of the Company's notification of its financing needs, including a detailed term sheet. The Underwriter's determination of whether in any case to exercise its right of first refusal will be strictly limited to the terms on such term sheet, and any waiver of such right of first refusal shall apply only to such specific terms. If the Underwriter waives its right of first refusal, any deviation from such terms (including without limitation after the launch of a subsequent transaction) shall void the waiver and require the Company to seek a new waiver from the right of first refusal on the terms set forth in this Section 5.16.

6. **Covenants of the Underwriter.** The Underwriter hereby covenants and agrees with the Company as follows:

6.1. **Underwriter Free Writing Prospectus.** The Underwriter has not used, authorized the use of, referred to or participated in the planning for use of, and will not use, authorize the use of, refer to or participate in the planning for use of, any Free Writing Prospectus (which term includes use of any written information furnished to the Commission by the Company and not incorporated by reference into the Registration Statement and any press release issued by the Company) other than (i) a Free Writing Prospectus that contains no "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Securities Act ("**Issuer Information**") that was not included in the Preliminary Prospectus or a previously filed Issuer Free Writing Prospectus, (ii) any Issuer Free Writing Prospectus listed in Schedule 2.5.4 hereto or prepared pursuant to Section 2.5.4 or Section 5.4 hereof (including any electronic road show), or (iii) any Free Writing Prospectus prepared by the Underwriter and approved by the Company in advance in writing.

6.2. **Section 8A Proceedings.** The Underwriter is not subject to any pending proceeding under Section 8A of the Securities Act with respect to the offering of the Units and will promptly notify the Company if any such proceeding against it is initiated during the Prospectus Delivery Period.

7. **Payment of Expenses.**

7.1. **Company Expenses.** The Company hereby agrees to pay on the Closing Date all expenses incident to the performance of the obligations of the Company under this Agreement including, but not limited to: (a) all filing fees and expenses relating to the registration of the Units with the Commission; (b) all filing fees and expenses associated with the review of the offering of the Units by FINRA; (c) all fees and expenses relating to the listing of the Shares and the Series A tradable Warrants and the Series B tradable Warrants on the Exchange (to the extent relevant) or on such other stock exchanges as the Company and the Underwriter together determine; (d) all fees, expenses and disbursements relating to the registration or qualification of the Units under the "blue sky" securities laws of such states and other jurisdictions as the Underwriter may reasonably designate (including, without limitation, all filing and registration fees, and the reasonable fees and disbursements of the Company's "blue sky" counsel, which will be Underwriter's counsel) unless such filings are not required in connection with the Company's proposed Exchange listing; (e) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Securities under the securities laws of such foreign jurisdictions as the Underwriter may reasonably designate; (f) the costs of all mailing and printing of the underwriting documents, the Registration Statement, Pricing Disclosure Package, the Final Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus or any Testing-the-Waters Communication and all amendments, supplements and exhibits thereto as the Underwriter may reasonably deem necessary; (g) the costs of preparing, printing and delivering certificates representing the Shares; (h) fees and expenses of the transfer agent for the Shares; (i) transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Underwriter; (j) the fees and expenses of the Company's accountants; and (k) reasonable legal fees and disbursements for the Underwriter's counsel. The total amount payable by the Company pursuant to (k) to the Underwriter shall not exceed \$150,000. The Underwriter may deduct from the net proceeds of the Offering payable to the Company on the Closing Date the expenses set forth herein to be paid by the Company to the Underwriter. Except as provided for in this Agreement, the Underwriter shall bear the costs and expenses incurred by them in connection with the sale of the Units and the transactions contemplated thereby.

- 7.2. **Non-accountable Expenses.** On the Closing Date, the Company shall pay to the Underwriter, by deduction from the net proceeds of the Offering a non-accountable expense allowance equal to one percent (1.0%) of the gross proceeds received by the Company from the sale of the Closing Units, provided, however, that in the event that the Offering is terminated, the Company agrees to reimburse the Underwriter pursuant to Section 12 hereof.
- 7.3. **Underwriter Expenses.** Except to the extent otherwise provided in this Section 7 or Section 9 hereof, the Underwriter will pay all of its own costs and expenses, including the fees and expenses of their counsel, any stock transfer taxes on resale of any of the Shares held by them, and any advertising expenses connected with any offers they may make.
- 7.4. **Company Reimbursement.** The provisions of this Section 7 shall not affect any agreement that the Company may make for the sharing of such costs and expenses.
8. **Conditions of the Obligations of the Underwriter.** The obligations of the Underwriter to purchase the Closing Units as provided herein on the Closing Date or the Option Securities as provided herein on any Additional Closing Date, as the case may be, shall be subject to the timely performance by the Company of its covenants and other obligations hereunder, and to each of the following additional conditions:
- 8.1. **Registration Compliance; No Stop Order.**
- 8.1.1. The Registration Statement and any post-effective amendment thereto shall have become effective, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto shall be in effect, and no proceeding for such purpose or pursuant to Section 8A of the Securities Act shall be pending before or threatened by the Commission.
- 8.1.2. The Company shall have filed the Final Prospectus and each Issuer Free Writing Prospectus with the Commission in accordance with and within the time periods prescribed by Section 5.1 hereof.
- 8.1.3. The Company shall have (A) disclosed to the Underwriter all requests by the Commission for additional information relating to the offer and sale of the Units and (B) complied with such requests to the reasonable satisfaction of the Underwriter.
- 8.2. **Representations and Warranties.** The representations and warranties of the Company contained herein shall be true and correct on the date hereof and on and as of the Closing Date or any Additional Closing Date, as the case may be, and the statements of the Company and its officers made in any certificates delivered pursuant to this Agreement shall be true and correct on and as of the Closing Date or any Additional Closing Date, as the case may be.
- 8.3. **Auditor Comfort Letters.** On the date of this Agreement and on the Closing Date or any Additional Closing Date, as the case may be, BF Borgers CPA PC shall have furnished to the Underwriter, at the request of the Company, letters, dated the respective dates of delivery thereof and addressed to the Underwriter, in form and substance reasonably satisfactory to the Underwriter, containing statements and information of the type customarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in each of the Registration Statement, the Pricing Disclosure Package and the Final Prospectus; provided that the letter delivered on the Closing Date or any Additional Closing Date, as the case may be, shall use a "cut-off" date no more than two business days prior to the Closing Date or such Additional Closing Date, as the case may be.
- 8.4. **No Material Adverse Change.** No event or condition of a type described in Section 2.12 hereof shall have occurred or shall exist, which event or condition is not described in each of the Pricing Disclosure Package and the Final Prospectus (in each case, exclusive of any amendment or supplement thereto), the effect of which in the judgment of the Underwriter makes it impracticable or inadvisable to proceed with the offering, sale or delivery of the Units on the Closing Date or any Additional Closing Date, as the case may be, in the manner and on the terms contemplated by this Agreement, the Pricing Disclosure Package and the Final Prospectus (in each case, exclusive of any amendment or supplement thereto).

8.5. **Opinion and Negative Assurance Letter of Counsel to the Company.** U.S. Company Counsel shall each have furnished to the Underwriter, at the request of the Company, its (i) written opinion, addressed to the Underwriter and dated the Closing Date or any Additional Closing Date, as the case may be, and (ii) negative assurance letter, addressed to the Underwriter and dated the Closing Date or any Additional Closing Date, as the case may be, in each case, in a form reasonably satisfactory to the Underwriter.

8.6. **Officer's Certificate.** The Underwriter shall have received as of the Closing Date or any Additional Closing Date as the case may be, a certificate of an executive officer of the Company who has specific knowledge of the Company's financial matters and is satisfactory to the Underwriter, (i) confirming that such officer has carefully reviewed the Registration Statement, the Pricing Disclosure Package, the Final Prospectus, each Issuer Free Writing Prospectus and each Written Testing-the-Waters Communication and, to the knowledge of such officer, the representations set forth in Sections 2.1.2, 2.2, 2.3.1, 2.4.1, 2.5.1, and 2.6, hereof are true and correct on and as of the Closing Date or any Additional Closing Date, as the case may be; and (ii) confirming that all of the other representations and warranties of the Company in this Agreement are true and correct on and as of the Closing Date or any Additional Closing Date, as the case may be, and that the Company has complied with all agreements and covenants and satisfied all other conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date or any Additional Closing Date, as the case may be.

8.7. **No Legal Impediment to Issuance and Sale.** No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any federal, state or foreign governmental or regulatory authority that would, as of the Closing Date or any Additional Closing Date, as the case may be, prevent the issuance, sale or delivery of the Closing Units or the Option Securities by the Company; and no injunction or order of any federal, state or foreign court shall have been issued that would, as of the Closing Date or any Additional Closing Date, as the case may be, prevent the issuance, sale or delivery of the Closing Units or the Option Securities.

8.8. **Good Standing.** The Underwriter shall have received on and as of the Closing Date and any Additional Closing Date, as the case may be, satisfactory evidence of the good standing of the Company and its Significant Subsidiaries in its jurisdiction of incorporation, in writing from the appropriate governmental authorities of such jurisdiction.

8.9. **Lock-Up Agreements.** The Lock-Up Agreements substantially in the form of **Exhibit 8.9** hereto executed by the officers, directors and certain stockholders of the Company relating to sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to the Underwriter on or before the date hereof, shall be in full force and effect on the Closing Date or any Additional Closing Date, as the case may be.

8.10. **Exchange Listing.** On the Closing Date or any Additional Closing Date, as the case may be, the Shares shall have been approved for listing on the Exchange, subject to notice of issuance.

8.11. **Additional Documents.** On or prior to the Closing Date or any Additional Closing Date, as the case may be, the Underwriter and its counsel shall have received such information, certificates and other additional documents from the Company as they may reasonably require in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the covenants, closing conditions or other obligations, contained in this Agreement.

All opinions, letters, certificates and other documents delivered pursuant to this Agreement will be deemed to be in compliance with the provisions hereof only if they are reasonably satisfactory in form and substance to counsel for the Underwriter.

If any condition specified in this Section 8 is not satisfied when and as required to be satisfied, this Agreement and all obligations of the Underwriter hereunder may be terminated by the Underwriter by notice to the Company at any time on or prior to the Closing Date or any Additional Closing Date, as the case may be, which termination shall be without liability on the part of any party to any other party, except that the Company shall continue to be liable for the payment of expenses under Section 7 and Section 12 hereof and except that the provisions of Section 9 and Section 10 hereof shall at all times be effective and shall survive any such termination.

9. **Indemnification.**

9.1. **Indemnification of the Underwriter by the Company.** The Company agrees to indemnify and hold harmless the Underwriter, its Affiliates, directors, officers, employees and agents and each person, if any, who controls the Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act from and against any and all losses, claims, damages and liabilities (including, without limitation, all reasonable legal fees and other expenses incurred in connection with any suit, action or proceeding or any claim asserted, as such fees and expenses are incurred), joint or several, that arise out of or are based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary in order to make the statements therein not misleading, or (ii) any untrue statement or alleged untrue statement of a material fact contained in any Pricing Disclosure Package (including any Pricing Disclosure Package that has subsequently been amended), the Final Prospectus (or any amendment or supplement thereto), any Preliminary Prospectus, any Issuer Information, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication or any Road Show, or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, in each case, except insofar as such losses, claims, damages or liabilities arise out of, or are based upon, any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with the Underwriter Information. The indemnity agreement set forth in this Section 9.1 shall be in addition to any liabilities that the Company may otherwise have.

9.2. **Indemnification of the Company by the Underwriter.** The Underwriter agrees to indemnify and hold harmless the Company, its directors, each officer who signed the Registration Statement 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 from and against any and all losses, claims, damages and liabilities (including, without limitation, all reasonable legal fees and other expenses incurred in connection with any suit, action or proceeding or any claim asserted, as such fees and expenses are incurred), joint or several, to the same extent as the indemnity set forth in Section 9.1 hereof; provided, however, that the Underwriter shall be liable only to the extent that any untrue statement or omission or alleged untrue statement or omission was made in the Registration Statement (or any amendment or supplement thereto), any Pricing Disclosure Package (including any Pricing Disclosure Package that has subsequently been amended), the Final Prospectus (or any amendment or supplement thereto), any Preliminary Prospectus, any Issuer Information, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication or any Road Show in reliance upon, and in conformity with, the Underwriter Information relating to the Underwriter. The indemnity agreement set forth in this Section 9 shall be in addition to any liabilities that the Underwriter may otherwise have.

9.3. **Notifications and Other Indemnification Procedures.** If any suit, action, proceeding (including any governmental or regulatory investigation), claim or demand shall be brought or asserted against any person in respect of which indemnification may be sought pursuant to any of the preceding subsections of this Section 9, such person (the "**Indemnified Person**") shall promptly notify the person against whom such indemnification may be sought (the "**Indemnifying Person**") in writing; provided that the failure to notify the Indemnifying Person shall not relieve it from any liability that it may have under any of the preceding subsections of this Section 9 except to the extent that it has been materially prejudiced by such failure; and provided, further, that the failure to notify the Indemnifying Person shall not relieve it from any liability that it may have to an Indemnified Person otherwise than under any of the preceding subsections of this Section 9. If any such proceeding shall be brought or asserted against an Indemnified Person and it shall have notified the Indemnifying Person thereof, the Indemnifying Person shall retain counsel reasonably satisfactory to the Indemnified Person (who shall not, without the consent of the Indemnified Person, be counsel to the Indemnifying Person) to represent the Indemnified Person in such proceeding and shall pay the reasonable and documented fees and expenses of such counsel related to such proceeding, as incurred. 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 Indemnifying Person and the Indemnified Person shall have mutually agreed to the contrary; (ii) the Indemnifying Person has failed within a reasonable time to retain counsel reasonably satisfactory to the Indemnified Person; (iii) the Indemnified Person shall have reasonably concluded that there may be legal defenses available to it that are different from or in addition to those available to the Indemnifying Person; or (iv) the named parties in any such proceeding (including any impleaded parties) include both the Indemnifying Person and the Indemnified Person and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interest between them. It is understood and agreed that the Indemnifying Person shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all Indemnified Persons, and that all such fees and expenses shall be paid or reimbursed as they are incurred. Any such separate firm for (i) the Underwriter, its Affiliates, directors, officers, employees and agents and each person, if any, who controls the Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall be designated in writing by the Underwriter; and (ii) the Company, its directors, its officers who signed the Registration Statement 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 shall be designated in writing by the Company.

9.4. **Settlements.** The Indemnifying Person under this Section 9 shall not be liable for any settlement of any proceeding effected without its written consent, which consent may not be unreasonably withheld, but if settled with such consent or if there be a final judgment for the plaintiff, the Indemnifying Person agrees to indemnify the Indemnified Person from and against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an Indemnified Person shall have requested an Indemnifying Person to reimburse the Indemnified Person for any reasonably incurred and documented fees and expenses of counsel as contemplated by this Section 9, the Indemnifying Person agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than forty-five (45) days after receipt by such Indemnifying Person of the aforesaid request, (ii) such Indemnifying Person shall not have reimbursed the Indemnified Person in accordance with such request, or shall not have disputed in good faith the Indemnified Person's entitlement to such reimbursement, prior to the date of such settlement and (iii) such Indemnified Person shall have given the Indemnifying Person at least forty-five (45) days' prior notice of its intention to settle. No Indemnifying Person shall, without the prior written consent of the Indemnified Person effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any Indemnified Person is or could have been a party and indemnity was or could have been sought hereunder by such Indemnified Person, unless such settlement, compromise or consent (x) includes an unconditional release of such Indemnified Person, in form and substance reasonably satisfactory to such Indemnified Person, from and against all liability on claims that are the subject matter of such action, suit or proceeding and (y) does not include any statements as to or any findings of fault, culpability or failure to act by or on behalf of any Indemnified Person.

10. **Contribution.**

10.1. To the extent the indemnification provided for in Section 9 hereof is unavailable to or insufficient to hold harmless an Indemnified Person in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each Indemnifying Person, in lieu of indemnifying such Indemnified Person thereunder, shall contribute to the aggregate amount paid or payable by such Indemnified Person, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriter, on the other hand, from the offering of the Units pursuant to this Agreement or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriter, on the other hand, in connection with the statements or omissions that resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriter, on the other hand, in connection with the offering of the Units pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Units pursuant to this Agreement (before deducting expenses) received by the Company, on the one hand, and the total underwriting discounts and commissions received by the Underwriter, on the other hand, in each case as set forth in the table on the cover of the Final Prospectus bear to the aggregate initial offering price of the Units. The relative fault of the Company, on the one hand, and the Underwriter, on the other hand, shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Underwriter, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

10.2. The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 9 hereof, all reasonable legal or other fees or expenses incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 9 hereof with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 10; provided, however, that no additional notice shall be required with respect to any action for which notice has been given under Section 9 hereof for purposes of indemnification.

10.3. The Company and the Underwriter agree that it would not be just and equitable if contribution pursuant to this Section 10 was determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 10.

10.4. Notwithstanding the provisions of this Section 10, the Underwriter shall not be required to contribute any amount in excess of the amount by which the total discounts and commissions received by the Underwriter in connection with the Units distributed by it exceeds the amount of any damages the Underwriter has otherwise paid or become liable to pay by reason of any untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11 of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

10.5. For purposes of this Section 10, each director, officer, employee and agent of the Underwriter and each person, if any, who controls the Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as the Underwriter, and each director and officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company with the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, shall have the same rights to contribution as the Company.

10.6. The remedies provided for in Section 9 and Section 10 hereof are not exclusive and shall not limit any rights or remedies which may otherwise be available to any Indemnified Person at law or in equity.

11. **Termination.**

11.1. Prior to the delivery of and payment for the Units on the Closing Date or any Additional Closing Date, as the case may be, this Agreement may be terminated by the Underwriter in the absolute discretion of the Underwriter by notice given to the Company if after the execution and delivery of this Agreement: (i) trading or quotation of any securities issued or guaranteed by the Company shall have been suspended or materially limited on any securities exchange, quotation system or in the over-the-counter market; (ii) trading in securities generally on any of the New York Stock Exchange, the Nasdaq Stock Exchange or the over-the-counter market shall have been suspended or materially limited; (iii) a general banking moratorium on commercial banking activities shall have been declared by federal or New York state authorities; (iv) there shall have occurred a material disruption in commercial banking or securities settlement, payment or clearance services in the United States; (v) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in general economic, financial or political conditions in the United States or internationally, as in the judgment of the Underwriter is material and adverse and makes it impracticable or inadvisable to proceed with the offering, sale or delivery of the Units on the Closing Date or any Additional Closing Date, as the case may be, in the manner and on the terms described in the Pricing Disclosure Package or to enforce contracts for the sale of securities; or (vi) the Company or any of its subsidiaries shall have sustained a loss by strike, fire, flood, earthquake, accident or other calamity of such character as in the judgment of the Underwriter may interfere materially with the conduct of the business and operations of the Company and its subsidiaries, considered as one entity, regardless of whether or not such loss shall have been insured.

11.2. Any termination pursuant to this Section 11 shall be without liability on the part of: (x) the Company to the Underwriter, except that the Company shall continue to be liable for the payment of expenses under Section 7; (y) the Underwriter to the Company; or (z) any party hereto to any other party except that the provisions of Section 9, Section 10 and this Section 11 hereof shall at all times be effective and shall survive any such termination. In the event this Agreement is terminated pursuant to this Section 11, the Underwriter shall be entitled to cash compensation of 8.0% of the gross proceeds with respect to any public or private offering or other financing or capital raising transaction of any kind ("**Tail Financing**") to the extent that such financing or capital is provided to the Company by investors the Underwriter has introduced to and/or contacted on behalf of the Company through an in-person, electronic or telephonic communication or investors that Aegis had "wall-crossed" in connection with this Offering (or any entity under common management or having a common investment advisor), if such Tail Financing is consummated at any time within the three (3) months period beginning on the Closing, expiration or termination of this Agreement.

12. **Reimbursement of the Underwriter's Expenses.** If (a) the Company fails to deliver the Units to the Underwriter for any reason at the Closing Date or any Additional Closing Date, as the case may be, in accordance with this Agreement or (b) the Underwriter declines to purchase the Units for any reason permitted under this Agreement, then the Company agrees to reimburse the Underwriter for all reasonable out-of-pocket costs and expenses (including the reasonable and documented fees and expenses of counsel to the Underwriter) incurred by the Underwriter in connection with this Agreement and the applicable offering contemplated hereby.

13. **Representations and Indemnities to Survive Delivery.** The respective indemnities, rights of contribution, agreements, representations, warranties and other statements of the Company and the Underwriter set forth in or made pursuant to this Agreement or made by or on behalf of the Company or the Underwriter pursuant to this Agreement or any certificate delivered pursuant hereto shall remain in full force and effect, regardless of any investigation made by or on behalf of the Underwriter, the Company or any of their respective officers or directors or any controlling person, as the case may be, and shall survive delivery of and payment for the Units sold hereunder and any termination of this Agreement.

14. **Notices.** All notices, requests, consents, claims, demands, waivers and other communications under this Agreement shall be in writing and shall be deemed to have been duly given (i) when delivered by hand (with written confirmation of receipt), (ii) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested), (iii) on the date sent by facsimile (with confirmation of transmission) or email of a PDF document if sent during normal business hours of the recipient, and on the next Business Day if sent after normal business hours of the recipient, or (iv) on the third day after the date mailed, by certified or registered mail (in each case, return receipt requested, postage pre-paid). Such communications must be sent to the respective parties at the following addresses (or at such other address for a party as shall be specified in a notice given in accordance with this Section 14):

If to the Underwriter: Aegis Capital Corp.
1345 Avenue of the Americas, 27th Floor New York, NY 10105
Email: reide@aegiscap.com
Attention: Robert Eide

with a copy to: Kaufman & Canoles, P.C.
Two James Center, 14th Floor, 1021 E. Cary St., Richmond, VA 23219
Email: awbasch@kaufcan.com
Attention: Anthony Basch

If to the Company: Sunshine Biopharma, Inc.
1177 Avenue of the Americas, 5th Floor
New York, NY 10036
Email: steve.slilaty@sunshinebiopharma.com
Attention: Dr. Steve Slilaty

with copy to: Sichenzia Ross Ference Carmel LLP
1185 Avenue of the Americas, 31st Floor
New York, New York 10036
Email: jcahlon@srfc.law
Attention: Jeff Cahlon

Any party hereto may change the address or facsimile number for receipt of communications by giving written notice to the others in accordance with this Section 14.

15. **Successors.** This Agreement shall inure solely to the benefit of and be binding upon the Underwriter, the Company and the other indemnified parties referred to in Section 9 and Section 10 hereof, and in each case their respective successors. Nothing in this Agreement is intended, or shall be construed, to give any other person or entity any legal or equitable right, benefit, remedy or claim under, or in respect of or by virtue of, this Agreement or any provision contained herein. The term “successors,” as used herein, shall not include any purchaser of the Units from the Underwriter merely by reason of such purchase.
16. **Partial Unenforceability.** The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.
17. **Governing Law.** This Agreement and any claim, controversy or dispute arising under or related to this Agreement, whether sounding in contract, tort or statute, shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state (including its statute of limitations), without giving effect to the conflict of laws provisions thereof to the extent such principles or rules would require or permit the application of the laws of any jurisdiction other than those of the State of New York.

18. **Consent to Jurisdiction.** No legal suit, action or proceeding arising out of or relating to this Agreement or the transactions contemplated hereby (each, a “**Related Proceeding**”) may be commenced, prosecuted or continued in any court other than the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York, which courts (collectively, the “**Specified Courts**”) shall have jurisdiction over the adjudication of any Related Proceeding, and the parties to this Agreement hereby irrevocably consent to the exclusive jurisdiction the Specified Courts and personal service of process with respect thereto. The parties to this Agreement hereby irrevocably waive any objection to the laying of venue of any Related Proceeding in the Specified Courts and irrevocably waive and agree not to plead or claim in any Specified Court that any Related Proceeding brought in any Specified Court has been brought in an inconvenient forum.
19. **Equitable Remedies.** Each party to this Agreement acknowledges and agrees that (a) a breach or threatened breach by the Company of any of its obligations under Section 5.11 or Section 5.16 would give rise to irreparable harm to the Underwriter for which monetary damages would not be an adequate remedy and (b) if a breach or a threatened breach by the Company of any such obligations occurs, the Underwriter will, in addition to any and all other rights and remedies that may be available to such party at law, at equity, or otherwise in respect of such breach, be entitled to equitable relief, including a temporary restraining order, an injunction, specific performance of the terms of Section 5.11 or Section 5.16 and any other relief that may be available from a court of competent jurisdiction, without any requirement to (i) post a bond or other security, or (ii) prove actual damages or that monetary damages will not afford an adequate remedy. Each party to this Agreement agrees that such party shall not oppose or otherwise challenge the existence of irreparable harm, the appropriateness of equitable relief or the entry by a court of competent jurisdiction of an order granting equitable relief, in either case, consistent with the terms of this Section 19.
20. **Waiver of Jury Trial.** The parties to this Agreement hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any Related Proceeding.
21. **No Fiduciary Relationship.** The Company acknowledges and agrees that: (i) the purchase and sale of the Units pursuant to this Agreement, including the determination of the offering price of the Units and any related discounts and commissions, is an arm’s-length commercial transaction between the Company, on the one hand, and the Underwriter, on the other hand; (ii) in connection with each transaction contemplated hereby and the process leading to such transaction the Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company or its Affiliates, stockholders, members, partners, creditors or employees or any other party; (iii) the Underwriter has not assumed and will not assume an advisory or fiduciary responsibility in favor of the Company with respect to any of the transactions contemplated hereby or the process leading thereto (irrespective of whether the Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement; (iv) the Underwriter and its respective Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and the Underwriter has no obligation to disclose any of such interests by virtue of any fiduciary or advisory relationship; and (v) the Underwriter has not provided any legal, accounting, regulatory or tax advice in any jurisdiction with respect to the offering contemplated hereby, and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent they deemed appropriate. The Company waives and releases, to the full extent permitted by applicable law, any claims it may have against the Underwriter arising from an alleged breach of fiduciary duty in connection with the offering of the Units or any matters leading up to the offering of the Units.
22. **Compliance with the USA Patriot Act.** In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the Underwriter is required to obtain, verify and record information that identifies their respective clients, including the Company, which information may include the name and address of its clients, as well as other information that will allow the Underwriter to properly identify their respective clients.
23. **Entire Agreement.** This Agreement, together with any contemporaneous written agreements and any prior written agreements (to the extent not superseded by this Agreement) that relate to the offering of the Units, represents the entire agreement among the Company and the Underwriter with respect to the preparation of the Registration Statement, the Pricing Disclosure Package, the Final Prospectus, each Preliminary Prospectus, each Issuer Free Writing Prospectus, each Testing-the-Waters Communication and each Road Show, the purchase and sale of the Units and the conduct of the offering contemplated hereby.

24. **Amendments or Waivers.** No amendment or waiver of any provision of this Agreement, nor any consent or approval to any departure therefrom, shall in any event be effective unless the same shall be in writing and signed by all the parties hereto. No waiver by any party shall operate or be construed as a waiver in respect of any failure, breach or default not expressly identified by such written waiver, whether of a similar or different character, and whether occurring before or after the waiver. No failure to exercise, or delay in exercising, any right, remedy, power or privilege arising from this Agreement shall operate or be construed as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise of any other right, remedy, power or privilege.

25. **Section Headings.** The headings herein are included for convenience of reference only and are not intended to be part of, or to affect the meaning or interpretation of, this Agreement.

26. **Counterparts.** This Agreement may be executed in counterparts, each of which will be deemed an original, but all of which together will be deemed to be one and the same agreement. Counterparts may be delivered via facsimile, email (including PDF or any electronic signature complying with the U.S. federal E-SIGN Act of 2000) or other transmission method, and any counterpart so delivered will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

27. **Recognition of the U.S. Special Resolution Regimes.**

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

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

27.3. As used in this section:

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

27.3.2. "**Covered Entity**" means any of the following:

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

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

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

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

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

[SBFM Underwriting Agreement Signature Page Follows]

[SBFM Underwriting Agreement Signature Page]

If the foregoing is in accordance with your understanding, please indicate your acceptance of this Agreement by signing in the space provided below.

Very truly yours,
SUNSHINE BIOPHARMA, INC.

By: /s/ Dr. Steve N. Slilaty
Name: Dr. Steve Slilaty
Title: Chief Executive Officer

Confirmed and accepted as of the date first above written:

AEGIS CAPITAL CORP.

By: /s/ Robert Eide
Name: Robert Eide
Title: Chief Executive Officer

SCHEDULE 1.15
Pricing Disclosure Package

Number of Closing Shares:	71,428,571
● Number of Units containing Firm Shares (“Common Units”)	26,428,571
● Number of Units containing Pre-funded Warrants (“Pre-funded Units”)	45,000,000
Number of Option Shares and/or Pre-funded Warrants:	10,714,285
Number of Option Series A Warrants:	1,071,429
Number of Option Series B Warrants:	2,142,857
Public Offering Price per Common Unit:	\$ 0.14
Public Offering Price per Pre-funded Unit:	\$ 0.139
Exercise Price per Pre-Funded Warrant:	\$ 0.001
Exercise Price per Series A Warrant per whole share:	\$ 2.10
Exercise Price per Series B Warrant per whole share:	\$ 2.38
Underwriting Discount per Common Unit and per Pre-funded Unit:	\$ 0.0112
Non-accountable expense allowance per Common Unit and per Pre-funded Unit:	\$ 0.0014
Purchase Price per Option Share:	\$ 0.1274
Purchase Price per Option Pre-Funded Warrant:	\$ 0.12649
Purchase Price per full Option Series A or Series B Warrant:	\$ 0.01

SCHEDULE 2.5.4
Free Writing Prospectuses

SCHEDULE 2.44
Significant Subsidiaries

Significant Subsidiaries
Nora Pharma Inc.
Sunshine Biopharma Canada Inc.
NOX Pharmaceuticals, Inc

Place of Incorporation

Canada
Canada
Colorado

SCHEDULE 4.1.2
Closing Securities

	<u>Number of Closing Units to Be Purchased</u>	<u>Number of Option Securities to Be Purchased if the Maximum Over-Allotment Option Is Exercised</u>
Underwriter		
Aegis Capital Corp.	71,428,571	10,714,285
Total:	71,428,571	10,714,285

**EXHIBIT 5.11.3.1
Form of Lock-Up Waiver**

[●], 202[●]

[Waiver Recipient Name and Address]

Re: Lock-Up Agreement Waiver

Ladies and Gentlemen:

[Pursuant to Section 8.9 of the Underwriting Agreement, dated February 13, 2024 (the “**Underwriting Agreement**”), among Sunshine Biopharma, Inc., a Colorado corporation (the “**Company**”), and Aegis Capital Corp. (the “**Underwriter**”), and the Lock-Up Agreement, dated [●], 2024 (the “**Lock-Up Agreement**”), between you and the Underwriter relating to the Company’s shares of Common Stock, \$0.001 par value per share (the “**Share**”), the Underwriter hereby gives its consent to allow you to sell up to [●] Shares [solely from and including [DATE] to and including [DATE]].]

[Pursuant to Section 5.11 of the Underwriting Agreement, the Underwriter hereby gives its consent to allow the Company to issue and sell up to [●] Shares pursuant to an offering of the Shares to commence prior to the expiration of the Lock-Up Period as defined in the Underwriting Agreement[, provided that such offering closes on or prior to [●]].]

AEGIS CAPITAL CORP.

By:

Name: Robert Eide

Title: Chief Executive Officer

EXHIBIT 5.11.3.2
Form of Lock-Up Waiver Press Release

Sunshine Biopharma, Inc.

[Date]

Sunshine Biopharma, Inc., a Colorado corporation (the “Company”) announced today that Aegis Capital Corp., acting as the Underwriter in the Company’s recent public offering of the Company’s Units consisting of one (1) share of Common Stock; and one-tenth (1/10th) of a Series A warrant to purchase one (1) share of Common Stock at a per-Share exercise price of \$[●] (representing 1500.0% of the per Closing Common Unit offering price; and two-tenths (2/10th) of a Series B warrant to purchase one (1) share of Common Stock at a per-Share exercise price of \$[●] (representing 1700.0% of the per Closing Common Unit offering price, is [waiving] [releasing] a lock-up restriction with respect to the Company’s shares of Common Stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on [Date], and the Shares may be sold on or after such date.

This press release is not an offer or sale of the securities in the United States or in any other jurisdiction where such offer or sale is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act of 1933, as amended.

EXHIBIT 8.9

SUNSHINE BIOPHARMA, INC. - LOCK-UP AGREEMENT

February , 2024

Aegis Capital Corp.
1345 Avenue of the Americas, 27th Floor
New York, NY 10105

Ladies and Gentlemen:

The undersigned understands that Aegis Capital Corp. (the "Underwriter") proposes to enter into an Underwriting Agreement (the "Underwriting Agreement") with Sunshine Biopharma, Inc., a Colorado corporation (the "Company"), providing for the public offering (the "Public Offering") of shares of Common Stock, \$0.001 par value per share ("Common Stock").

To induce the Underwriter to continue its efforts in connection with the Public Offering, the undersigned hereby irrevocably agrees that, without the prior written consent of the Underwriter, the undersigned will not, during the period commencing on the date hereof and ending ninety (90) days after the Closing Date (as defined in the Underwriting Agreement) (the "Lock-Up Period"), (1) offer, pledge, sell, contract to sell, grant, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock, whether now owned or hereafter acquired by the undersigned (or any Affiliate of the undersigned) or with respect to which the undersigned (or any Affiliate of the undersigned) has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"); (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Lock-Up Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Lock-Up Securities, in cash or otherwise; (3) make any demand for or exercise any right with respect to the registration of any Lock-Up Securities; or (4) publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement relating to any Lock-Up Securities.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer Lock-Up Securities without the prior written consent of the Underwriter in connection with:

1. transactions relating to Lock-Up Securities acquired in open market transactions after the completion of the Public Offering; provided that no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), shall be required or shall be voluntarily made in connection with subsequent sales of Lock-Up Securities acquired in such open market transactions;
2. transfers of Lock-Up Securities as a *bona fide* gift, by will or intestacy or to a family member or trust for the benefit of a family member (for purposes of this lock-up agreement, "family member" means any relationship by blood, marriage or adoption, not more remote than first cousin), provided that the transferee agrees to sign and deliver a lock-up agreement substantially in the form of this lock-up agreement for the balance of the Lock-Up Period;
3. transfers of Lock-Up Securities to a charity or educational institution; or

4. if the undersigned, directly or indirectly, controls a corporation, partnership, limited liability company or other business entity, any transfers of Lock-Up Securities to any stockholder, partner or member of, or owner of similar equity interests in, the undersigned, as the case may be; provided that in the case of any transfer pursuant to the foregoing clauses (b), (c) or (d),
 - 4.1. any such transfer shall not involve a disposition for value,
 - 4.2. each transferee shall sign and deliver to the Underwriter a lock-up agreement substantially in the form of this lock-up agreement and
 - 4.3. no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's Lock-Up Securities except in compliance with this lock-up agreement.
 5. the receipt by the undersigned from the Company of Common Stock upon the vesting of restricted stock awards or units or upon the exercise of options to purchase the shares of Common Stock issued under an equity incentive plan of the Company or an employment arrangement (the "**Plan shares of Common Stock**") or the transfer or withholding of Common Stock or any securities convertible into Common Stock to the Company upon a vesting event of the Company's securities or upon the exercise of options to purchase the Company's securities, in each case on a "cashless" or "net exercise" basis or to cover tax obligations of the undersigned in connection with such vesting or exercise provided that if the undersigned is required to file a report under Section 13 of the Exchange Act reporting a reduction in beneficial ownership of Common Stock during the Lock-Up Period, the undersigned shall include a statement in such schedule or report to the effect that the purpose of such transfer was to cover tax withholding obligations of the undersigned in connection with such vesting or exercise and, provided further that the Plan Common Stock shall be subject to the terms of this lock-up agreement;
 6. the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of Lock-Up Securities provided that (i) such plan does not provide for the transfer of Lock-Up Securities during the Lock-Up Period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by or on behalf of the undersigned or the Company regarding the establishment of such plan, such public announcement or filing shall include a statement to the effect that no transfer of Lock-Up Securities may be made under such plan during the Lock-Up Period;
 7. the transfer of Lock-Up Securities that occurs by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement, provided that the transferee agrees to sign and deliver a lock-up agreement substantially in the form of this lock-up agreement for the balance of the Lock-Up Period, and provided further that any filing under Section 13 of the Exchange Act that is required to be made during the Lock-Up Period as a result of such transfer shall include a statement that such transfer has occurred by operation of law; and provided further that competent legal counsel for the Company shall have first advised that such transfer is a mandatory and not voluntary transfer; and
 8. the transfer of Lock-Up Securities pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of the Common Stock involving a change of control (as defined below) of the Company after the closing of the Transaction and approved by the Company's board of directors; provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the Lock-Up Securities owned by the undersigned shall remain subject to the restrictions contained in this lock-up agreement. For purposes of clause (i) above, "change of control" shall mean the consummation of any bona fide third party tender offer, merger, amalgamation, consolidation or other similar transaction the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of a majority of total voting power of the voting stock of the Company. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's Lock-Up Securities except in compliance with this lock-up agreement.
-

If the undersigned is an officer or director of the Company, (i) the undersigned agrees that the foregoing restrictions shall be equally applicable to any Common Stock that the undersigned may purchase in the Public Offering; (ii) the Underwriter agrees that, at least three (3) business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of Lock-Up Securities, the Underwriter will notify the Company of the impending release or waiver; and (iii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two (2) business days before the effective date of the release or waiver. Any release or waiver granted by the Underwriter hereunder to any such officer or director shall only be effective two (2) business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is affected solely to permit a transfer of Lock-Up Securities not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this lock-up agreement to the extent and for the duration that such terms remain in effect at the time of such transfer.

No provision in this lock-up agreement shall be deemed to restrict or prohibit (i) the adoption of an equity incentive plan and the grant of options and/or restricted stock grants thereunder, and the filing of a registration statement on Form S-8; *provided*, however, that any sales by the undersigned shall be subject to the terms of this lock-up agreement, (ii) the issuance of Common Stock in connection with an acquisition or a strategic relationship which may include the sale of equity securities; and (iii) the exercise, exchange or conversion by the undersigned of any securities exercisable or exchangeable for or convertible into Common Stock, as applicable; *provided that* none of such Common Stock shall be saleable in the public market until the expiration of the Lock-Up Period.

The undersigned understands that the Company and the Underwriter are relying upon this lock-up agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this lock-up agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors and assigns. This Letter 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 provisions hereof be enforced by, any of other person or entity.

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

[SBFM Lock-Up Agreement Signature Page Follows]

[SBFM Lock-Up Agreement Signature Page]

The undersigned has read and agrees to be bound by the terms of this Lock-Up Agreement dated as of February , 2024.

Very truly yours, _____

(Signature)

Name:

Address: _____

Email: _____

SERIES A WARRANT TO PURCHASE COMMON STOCK
SUNSHINE BIOPHARMA, INC.

Warrant Shares: [●]
CUSIP:
ISIN:

Initial Exercise Date: February 15, 2024
Issue Date: February 15, 2024

THIS WARRANT TO PURCHASE COMMON STOCK (the “**Warrant**”) certifies that, for value received, [●] or its assigns (the “**Holder**”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Initial Exercise Date and on or prior to 5:00 p.m. (New York City time) on August 14, 2026 (the “**Termination Date**”) but not thereafter, to subscribe for and purchase from Sunshine Biopharma, Inc., a Colorado corporation (the “**Company**”), up to [●] shares (as subject to adjustment hereunder, the “**Warrant Shares**”) of Common Stock. The purchase price of one (1) share of Common Stock under this Series A Warrant (this “**Warrant**”) shall be equal to the Exercise Price, as defined in Section 2.2. This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee (“**DTC**”) shall initially be the sole registered holder of this Warrant, subject to a Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

1. **Definitions.** In addition to the terms defined elsewhere in this Warrant or in the Underwriting Agreement dated February 13, 2024, the following terms have the meanings indicated in this Section 1:

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

1.2. “**Bid Price**” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

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

1.4. “**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

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

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

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

- 1.8. “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- 1.9. “**Person**” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.
- 1.10. “**Registration Statement**” means the Company’s registration statement on Form S-1 (File No. 333-276817).
- 1.11. “**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.
- 1.12. “**Stockholder Approval**” means such approval as may be required by the applicable rules and regulations of the Nasdaq Capital Market (or any successor entity) from the stockholders of the Company, or board of directors in lieu thereof, with respect to issuance of all of the Warrants and the Warrant Shares upon the exercise thereof, including without limitation:
- 1.12.1. to give full effect to alternative cashless exercises pursuant to Section 2.3 hereof.
- 1.12.2. to consent to any adjustment to the exercise price or number of shares of Common Stock underlying the Warrants in the event of a Share Combination Event pursuant to Section 3.7.
- 1.12.3. to consent to the voluntary adjustment, from time to time, of the exercise price of any and all currently outstanding warrants pursuant to Section 3.8.
- 1.13. “**Subsidiary**” means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.
- 1.14. “**Trading Day**” means a day on which the Common Stock is traded on a Trading Market.
- 1.15. “**Trading Market**” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, OTCQB or OTCQX (or any successors to any of the foregoing).
- 1.16. “**Transfer Agent**” means Equiniti, the current transfer agent of the Company, with a mailing address of 1110 Centre Pointe Curve, Suite 101, Mendota Heights, Minnesota 55120 and an email address of issuerservices@equiniti.com, and any successor transfer agent of the Company.
- 1.17. “**Underwriting Agreement**” means the underwriting agreement, dated as of February 13, 2024, between the Company and Aegis Capital Corp., as amended, modified or supplemented from time to time in accordance with its terms.
- 1.18. “**VWAP**” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

1.19. “**Warrant Agent Agreement**” means that certain Warrant Agent agreement, dated on or about the Initial Exercise Date, between the Company and the Warrant Agent.

1.20. “**Warrant Agent**” means the Transfer Agent and any successor warrant agent of the Company.

1.21. “**Warrants**” means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

2. **Exercise.**

2.1. **Exercise of Warrant.** Subject to the provisions of Section 2.5 herein, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise substantially in the form attached hereto as Exhibit 2.1 (the “**Notice of Exercise**”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2.4.1 herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2.3 below is specified in the applicable Notice of Exercise. For the avoidance of doubt, any reference to cashless exercise herein shall include a reference to alternative cashless exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Notwithstanding the foregoing in this Section 2.1, a holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2.1 by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

2.2. **Exercise Price.** The exercise price per Warrant Share shall be \$2.10, subject to adjustment hereunder (the “**Exercise Price**”).

2.3. **Cashless Exercise.** If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder or the resale of the Warrant Shares by the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2.1 hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2.1 hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2.1 hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2.1 hereof after the close of “regular trading hours” on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a) (9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2.3.

The Holder may also effect an “alternative cashless exercise” following the Stockholder Approval Date. In such event, the aggregate number of Warrant Shares issuable in such alternative cashless exercise pursuant to any given Notice of Exercise electing to effect an alternative cashless exercise shall equal the product of (i) the aggregate number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise, multiplied by (ii) 2.0. Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2.3 (including an alternative cashless exercise pursuant to this paragraph).

2.4. Mechanics of Exercise.

2.4.1. **Delivery of Warrant Shares upon Exercise.** The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("**DWAC**") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "**Warrant Share Delivery Date**"). Upon delivery of the Notice of Exercise, 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 Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. Notwithstanding anything herein to the contrary, upon delivery of the Notice of Exercise, the Holder shall be deemed for purposes of Regulation SHO under the Exchange Act to have become the holder of the Warrant Shares irrespective of the date of delivery of the Warrant Shares. If the Company fails for any reason (other than the failure of the Holder to timely deliver the aggregate Exercise Price, unless the Warrant is validly exercised by means of a cashless exercise) to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third (3rd) Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a Transfer Agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "**Standard Settlement Period**" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Underwriting Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

2.4.2. **Delivery of New Warrants Upon Exercise.** If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

2.4.3. **Rescission Rights.** If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2.4.1 by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise; provided, however, that the Holder shall be required to return any Warrant Shares subject to any such rescinded exercise notice concurrently with the return to Holder of the aggregate Exercise Price paid to the Company for such Warrant Shares and the restoration of Holder's right to acquire such Warrant Shares pursuant to this Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

2.4.4. **Compensation for Buy-In on Failure to Timely Deliver Warrant Shares upon Exercise.** In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2.4.1 above pursuant to an exercise on or before the Warrant Share Delivery Date (other than the failure of the Holder to timely deliver the aggregate Exercise Price, unless the Warrant is validly exercised by means of a cashless exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "**Buy-In**"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored and return any amount received by the Company in respect of the Exercise Price for those Warrant Shares (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

2.4.5. **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 which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

2.4.6. **Charges, Taxes and Expenses.** Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto as Exhibit 2.4.6 duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

2.4.7. **Closing of Books.** The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

2.5. Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "**Attribution Parties**")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2.5, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2.5 applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2.5, 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 (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the 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 Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "**Beneficial Ownership Limitation**" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2.5, provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2.5 shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2.5 to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

3. **Certain Adjustments.**

3.1. Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of Shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3.1 shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

3.2. **Subsequent Rights Offerings.** In addition to any adjustments pursuant to Section 3.1 above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to all (or substantially 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 acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

3.3. **Pro Rata Distributions.** During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to all (or substantially all) 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, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

3.4. Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a “**Fundamental Transaction**”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2.5 on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “**Alternate Consideration**”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2.5 on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock/shares of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. “**Black Scholes Value**” means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg, L.P. (“**Bloomberg**”) determined as of the day of consummation of the applicable contemplated Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) 100% and (2) the 100 day volatility as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder’s request pursuant to this Section 3.4 and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date and (E) a zero cost of borrow.

The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five (5) Business Days after the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "**Successor Entity**") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3.7 pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant that is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock prior to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3.4 regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

3.5. **Calculations.** All calculations under this Section 3 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 3, 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 treasury shares, if any) issued and outstanding.

3.6. **Notice to Holder.**

3.6.1. **Adjustment to Exercise Price.** Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

3.6.2. **Notice to Allow Exercise by Holder.** If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock 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 Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 20 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 Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

3.7. Share Combination Event Adjustment. In addition to the adjustments set forth in Section 3.1 above, if at any time and from time to time on or after the Issuance Date there occurs any share split, share dividend, share combination recapitalization or other similar transaction involving the Common Stock (each, a “**Share Combination Event**”, and such date thereof, the “**Share Combination Event Date**”) and the lowest VWAP during the period commencing Five (5) consecutive Trading Days immediately preceding and the Five (5) consecutive Trading Days immediately following the Share Combination Event Date (the “**Event Market Price**”) (provided if the Share Combination Event is effective after close of Trading on the primary Trading Market, then commencing on the next Trading Day which 11 Trading Day period shall be the “**Share Combination Adjustment Period**”) is less than the Exercise Price then in effect (after giving effect to the adjustment in clause 3.1 above), then at the close of trading on the primary Trading Market on the last day of the Share Combination Adjustment Period, the Exercise Price then in effect on such Fifth (5th) Trading Day shall be reduced (but in no event increased) to the Event Market Price and the number of Warrant Shares issuable hereunder shall be increased such that the aggregate Exercise Price of this Warrant on the Issuance Date for the Warrant Shares then outstanding shall remain unchanged. For the avoidance of doubt, if the adjustment in the immediately preceding sentence would otherwise result in an increase in the Exercise Price hereunder, no adjustment shall be made, and if this Warrant is exercised, on any given Exercise Date during the Share Combination Adjustment Period, solely with respect to such portion of this Warrant exercised on such applicable Exercise Date, such applicable Share Combination Adjustment Period shall be deemed to have ended on, and included, the Trading Day immediately prior to such Exercise Date and the Event Market Price on such applicable Exercise Date will be the lowest VWAP of the Common Stock immediately during such the Share Combination Adjustment Period prior to such Exercise Date and ending on, and including the Trading Day immediately prior to such Exercise Date. Notwithstanding anything herein to the contrary, the “aggregate Exercise Price” used in the determination of the increase in Warrant Shares above shall be based on the aggregate Exercise Price on the Closing Date (reduced ratably for prior exercises), and shall not be based on an aggregate Exercise Price resulting from a reduction in the Exercise Price without a proportional increase in the number of Warrant Shares (i.e., pursuant to Section 3.8 or otherwise).

3.8. Voluntary Adjustment by Company. Subject to the rules and regulations of the Trading Market and the consent of the Holders of a majority in interest of the Warrants then outstanding, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors.

3.9. Stockholder Approval. The Company shall (a) hold a special meeting of stockholders (which may also be at the annual meeting of stockholders) at the earliest practicable date after the date hereof, or (b) obtain by written consent the Stockholder Approval, but in no event later than twenty (20) days (which time period, for the avoidance of doubt, does not include the time required to file and mail an information statement on Schedule 14C with respect to such written consent as required under the Exchange Act), after the Closing Date for the purpose of obtaining Stockholder Approval, if required to effect the purpose thereof, with the recommendation of the Board that such proposal be approved, and the Company shall, if applicable, solicit proxies from its stockholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Stockholder Approval, and officers, directors and stockholders subject to Lock-Up Agreement pursuant to Section 8.9 of the Underwriting Agreement shall, if applicable, cast their proxies in favor of such proposal. If the Company does not obtain Stockholder Approval at the first meeting or by written consent, the Company shall call a meeting every twenty (20) days thereafter to seek Stockholder Approval until the earlier of the date Stockholder Approval is obtained or the Warrants are no longer outstanding.

3.10. Reserved.

4. **Transfer of Warrant.**

4.1. **Transferability.** Subject to compliance with any applicable securities laws, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto as Exhibit 2.4.6 duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

4.2. **New Warrants.** If this Warrant is not held in global form through DTC (or any successor depository), this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4.1, as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

4.3. **Warrant Register.** The Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the "**Warrant Register**"), in the name of the record Holder hereof from time to time. The Company and the Warrant 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.

5. **Miscellaneous.**

5.1. **No Rights as Stockholder until Exercise; No Settlement in Cash.** This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2.4.1, except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2.3 or to receive cash payments pursuant to Section 2.4.1 and Section 2.4.4 herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

5.2. **Loss, Theft, Destruction or Mutilation of Warrant.** The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

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

5.4. Authorized Shares.

5.4.1. **Reservation of Authorized and Unissued Shares.** The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares of Common Stock to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable (which means that no further sums are required to be paid by the holders thereof in connection with the issue thereof) and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

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

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

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

5.6. **Restrictions.** The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

5.7. **Nonwaiver and Expenses.** No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies, notwithstanding the fact that the right to exercise this Warrant terminates on the Termination Date. No provision of this Warrant shall be construed as a waiver by the Holder of any rights which the Holder may have under the federal securities laws and the rules and regulations of the Commission thereunder. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

5.8. **Notices.** Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 1177 Avenue of the Americas, 5th Floor, New York, NY 10036, Attention: Steve Slilaty, Chief Executive Officer, email address: steve.slilaty@sunshinebiopharma.com, or such other email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section 5.8 prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section 5.8 on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

5.9. **Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

5.10. **Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

5.11. **Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

5.12. **Amendment.** This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder.

5.13. **Severability.** Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

5.14. **Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

5.15. **Warrant Agent Agreement.** If this Warrant is held in global form through DTC (or any successor depository), this Warrant is issued subject to the Warrant Agent Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agent Agreement, the provisions of this Warrant shall govern and be controlling.

[SBFM Investor Registered Series A Warrant Signature Page Follows]

[SBFM Investor Registered Series A Warrant Signature Page]

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

SUNSHINE BIOPHARMA, INC.

By: _____
Name: Steve Slilaty
Its: Chief Executive Officer

NOTICE OF EXERCISE

TO: SUNSHINE BIOPHARMA, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States.

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2.3, to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2.3.

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the provisions of subsection 2.3, to exercise this Warrant pursuant to the "alternative cashless exercise" procedure set forth in subsection 2.3.

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares of Common Stock.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
Address: _____
Phone Number: _____
Email Address: _____
Date: _____
Holder's Signature: _____
Holder's Address: _____

SERIES B WARRANT TO PURCHASE COMMON STOCK

SUNSHINE BIOPHARMA, INC.

Warrant Shares: [●]
CUSIP:
ISIN:

Initial Exercise Date: February 15, 2024
Issue Date: February 15, 2024

THIS WARRANT TO PURCHASE COMMON STOCK (the “**Warrant**”) certifies that, for value received, [●] or its assigns (the “**Holder**”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Initial Exercise Date and on or prior to 5:00 p.m. (New York City time) on February 15, 2029 (the “**Termination Date**”) but not thereafter, to subscribe for and purchase from Sunshine Biopharma, Inc., a Colorado corporation (the “**Company**”), up to [●] shares (as subject to adjustment hereunder, the “**Warrant Shares**”) of Common Stock. The purchase price of one (1) share of Common Stock under this Series B Warrant (this “**Warrant**”) shall be equal to the Exercise Price, as defined in Section 2.2. This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee (“**DTC**”) shall initially be the sole registered holder of this Warrant, subject to a Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

1. **Definitions.** In addition to the terms defined elsewhere in this Warrant or in the Underwriting Agreement dated February 13, 2024, the following terms have the meanings indicated in this Section 1:

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

1.2. “**Bid Price**” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

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

1.4. “**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

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

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

- 1.7. “**Common Stock Equivalents**” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.
- 1.8. “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- 1.9. “**Person**” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.
- 1.10. “**Registration Statement**” means the Company’s registration statement on Form S-1 (File No. 333-276817).
- 1.11. “**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.
- 1.12. “**Stockholder Approval**” means such approval as may be required by the applicable rules and regulations of the Nasdaq Capital Market (or any successor entity) from the stockholders of the Company, or board of directors in lieu thereof, with respect to issuance of all of the Warrants and the Warrant Shares upon the exercise thereof, including without limitation:
- 1.12.1. to render inapplicable clause (i) of the definition of the Floor Price in Section 3.2 hereof.
 - 1.12.2. to give full effect to the adjustment in the exercise price and number of Warrant Shares following a Dilutive Issuance pursuant to Section 3.2.
 - 1.12.3. to consent to any adjustment to the exercise price or number of shares of Common Stock underlying the Warrants in the event of a Share Combination Event pursuant to Section 3.8.
 - 1.12.4. to consent to the voluntary adjustment, from time to time, of the exercise price of any and all currently outstanding warrants pursuant to Section 3.9.
- 1.13. “**Subsidiary**” means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.
- 1.14. “**Trading Day**” means a day on which the Common Stock is traded on a Trading Market.
- 1.15. “**Trading Market**” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, OTCQB or OTCQX (or any successors to any of the foregoing).
- 1.16. “**Transfer Agent**” means Equiniti, the current transfer agent of the Company, with a mailing address of 1110 Centre Pointe Curve, Suite 101, Mendota Heights, Minnesota 55120 and an email address of issuerservices@equiniti.com, and any successor transfer agent of the Company.
- 1.17. “**Underwriting Agreement**” means the underwriting agreement, dated as of February 13, 2024, between the Company and Aegis Capital Corp., as amended, modified or supplemented from time to time in accordance with its terms.

1.18. “**Variable Rate Transaction**” means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive, additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon, and/or varies with, the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the shares of Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit, whereby the Company may issue securities at a future determined price.

1.19. “**VWAP**” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

1.20. “**Warrant Agent Agreement**” means that certain Warrant Agent agreement, dated on or about the Initial Exercise Date, between the Company and the Warrant Agent.

1.21. “**Warrant Agent**” means the Transfer Agent and any successor warrant agent of the Company.

1.22. “**Warrants**” means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

2. **Exercise.**

2.1. **Exercise of Warrant.** Subject to the provisions of Section 2.5 herein, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise substantially in the form attached hereto as Exhibit 2.1 (the “**Notice of Exercise**”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2.4.1 herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2.3 below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Notwithstanding the foregoing in this Section 2.1, a holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2.1 by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

2.2. **Exercise Price.** The exercise price per Warrant Share shall be \$2.38, subject to adjustment hereunder (the "**Exercise Price**").

2.3. **Cashless Exercise.** If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2.1 hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2.1 hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2.1 hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2.1 hereof after the close of "regular trading hours" on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a) (9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2.3.

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2.3.

2.4. Mechanics of Exercise.

2.4.1. **Delivery of Warrant Shares upon Exercise.** The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("**DWAC**") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "**Warrant Share Delivery Date**"). Upon delivery of the Notice of Exercise, 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 Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. Notwithstanding anything herein to the contrary, upon delivery of the Notice of Exercise, the Holder shall be deemed for purposes of Regulation SHO under the Exchange Act to have become the holder of the Warrant Shares irrespective of the date of delivery of the Warrant Shares. If the Company fails for any reason (other than the failure of the Holder to timely deliver the aggregate Exercise Price, unless the Warrant is validly exercised by means of a cashless exercise) to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third (3rd) Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a Transfer Agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "**Standard Settlement Period**" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Underwriting Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

2.4.2. **Delivery of New Warrants Upon Exercise.** If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

2.4.3. **Rescission Rights.** If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2.4.1 by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise; provided, however, that the Holder shall be required to return any Warrant Shares subject to any such rescinded exercise notice concurrently with the return to Holder of the aggregate Exercise Price paid to the Company for such Warrant Shares and the restoration of Holder's right to acquire such Warrant Shares pursuant to this Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

2.4.4. **Compensation for Buy-In on Failure to Timely Deliver Warrant Shares upon Exercise.** In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2.4.1 above pursuant to an exercise on or before the Warrant Share Delivery Date (other than the failure of the Holder to timely deliver the aggregate Exercise Price, unless the Warrant is validly exercised by means of a cashless exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "**Buy-In**"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored and return any amount received by the Company in respect of the Exercise Price for those Warrant Shares (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

2.4.5. **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 which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

2.4.6. **Charges, Taxes and Expenses.** Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto as Exhibit 2.4.6 duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

2.4.7. **Closing of Books.** The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

2.5. **Holder's Exercise Limitations.** The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "**Attribution Parties**")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2.5, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2.5 applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2.5, 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 (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the 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 Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "**Beneficial Ownership Limitation**" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2.5, provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2.5 shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2.5 to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

3. **Certain Adjustments.**

3.1. **Stock Dividends and Splits.** If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of Shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3.1 shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

3.2. **Subsequent Equity Sales.** If the Company or any Subsidiary thereof, as applicable, at any time while this Warrant is outstanding, shall sell, enter into an agreement to sell, or grant any option to purchase, or sell, enter into an agreement to sell, or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any shares of Common Stock or Common Stock Equivalents, at an effective price per share less than the Exercise Price then in effect (such lower price, the "**Base Share Price**" and such issuances collectively, a "**Dilutive Issuance**") (it being understood and agreed that if the holder of the shares of Common Stock or share of Common Stock Equivalents or such other securities so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share that is less than the Exercise Price, such issuance shall be deemed to have occurred for less than the Exercise Price on such date of the Dilutive Issuance at such effective price), then simultaneously with the consummation (or, if earlier, the announcement (provided such Dilutive Issuance occurs)) of each Dilutive Issuance the Exercise Price shall be reduced and only reduced to equal the Base Share Price and the number of Warrant Shares issuable hereunder shall be increased such that the aggregate Exercise Price payable hereunder, after taking into account the decrease in the Exercise Price, shall be equal to the aggregate Exercise Price prior to such adjustment, provided that, prior to Stockholder Approval, the Base Share Price shall not be less than (i) \$0.10 (the "**Floor Price**") (subject to adjustment for reverse and forward stock splits, recapitalizations and similar transactions following the date of the Underwriting Agreement); provided, however, if one or more Dilutive Issuances occurred prior to Stockholder Approval being obtained and the reduction of the Exercise Price was limited by the Floor Price, effective immediately upon receipt of Stockholder Approval, the Exercise Price will automatically be reduced to equal the lowest Base Share Price with respect to any Dilutive Issuance that occurred prior to the Stockholder Approval being obtained. Notwithstanding the foregoing, no adjustments shall be made, paid or issued under this Section 3.2 in respect of an Exempt Issuance (as defined in the Underwriting Agreement). The Company shall notify the Holder, in writing, no later than the Trading Day following the issuance or deemed issuance of any shares of Common Stock or share of Common Stock Equivalents subject to this Section 3(b), indicating therein the applicable issuance price, or applicable reset price, exchange price, conversion price and other pricing terms (such notice, the "**Dilutive Issuance Notice**"). For purposes of clarification, whether or not the Company provides a Dilutive Issuance Notice pursuant to this Section 3(b), upon the occurrence of any Dilutive Issuance, the Holder is entitled to receive a number of Warrant Shares based upon the Base Share Price regardless of whether the Holder accurately refers to the Base Share Price in the Notice of Exercise. If the Company enters into a Variable Rate Transaction, the Company shall be deemed to have issued shares of Common Stock or share of Common Stock Equivalents at the lowest possible price, conversion price or exercise price at which such securities may be issued, converted or exercised.

3.3. **Subsequent Rights Offerings.** In addition to any adjustments pursuant to Section 3.1 above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to all (or substantially 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 acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

3.4. **Pro Rata Distributions.** During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to all (or substantially all) 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, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

3.5. **Fundamental Transaction.** If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock or 50% or more of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding shares of Common Stock or 50% or more of the voting power of the common equity of the Company (each a “**Fundamental Transaction**”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2.5 on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “**Alternate Consideration**”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2.5 on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock/shares of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. “**Black Scholes Value**” means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg, L.P. (“**Bloomberg**”) determined as of the day of consummation of the applicable contemplated Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) 100% and (2) the 100 day volatility as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder’s request pursuant to this Section 3.7 and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five (5) Business Days after the Holder’s election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “**Successor Entity**”) to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3.7 pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant that is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock prior to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term “Company” under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant referring to the “Company” shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the

Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3.7 regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

3.6. **Calculations.** All calculations under this Section 3 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 3, 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 treasury shares, if any) issued and outstanding.

3.7. **Notice to Holder.**

3.7.1. **Adjustment to Exercise Price.** Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

3.7.2. **Notice to Allow Exercise by Holder.** If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock 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 Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 20 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 Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

3.8. **Share Combination Event Adjustment.** In addition to the adjustments set forth in Section 3.1 above, if at any time and from time to time on or after the Issuance Date there occurs any share split, share dividend, share combination recapitalization or other similar transaction involving the Common Stock (each, a “**Share Combination Event**”, and such date thereof, the “**Share Combination Event Date**”) and the lowest VWAP during the period commencing Five (5) consecutive Trading Days immediately preceding and the Five (5) consecutive Trading Days immediately following the Share Combination Event Date (the “**Event Market Price**”) (provided if the Share Combination Event is effective after close of Trading on the primary Trading Market, then commencing on the next Trading Day which 11 Trading Day period shall be the “**Share Combination Adjustment Period**”) is less than the Exercise Price then in effect (after giving effect to the adjustment in clause 3.1 above), then at the close of trading on the primary Trading Market on the last day of the Share Combination Adjustment Period, the Exercise Price then in effect on such Fifth (5th) Trading Day shall be reduced (but in no event increased) to the Event Market Price and the number of Warrant Shares issuable hereunder shall be increased such that the aggregate Exercise Price of this Warrant on the Issuance Date for the Warrant Shares then outstanding shall remain unchanged. For the avoidance of doubt, if the adjustment in the immediately preceding sentence would otherwise result in an increase in the Exercise Price hereunder, no adjustment shall be made, and if this Warrant is exercised, on any given Exercise Date during the Share Combination Adjustment Period, solely with respect to such portion of this Warrant exercised on such applicable Exercise Date, such applicable Share Combination Adjustment Period shall be deemed to have ended on, and included, the Trading Day immediately prior to such Exercise Date and the Event Market Price on such applicable Exercise Date will be the lowest VWAP of the Common Stock immediately during such the Share Combination Adjustment Period prior to such Exercise Date and ending on, and including the Trading Day immediately prior to such Exercise Date. Notwithstanding anything herein to the contrary, the “aggregate Exercise Price” used in the determination of the increase in Warrant Shares above shall be based on the aggregate Exercise Price on the Closing Date (reduced ratably for prior exercises), and shall not be based on an aggregate Exercise Price resulting from a reduction in the Exercise Price without a proportional increase in the number of Warrant Shares (i.e., pursuant to Section 3.9 or otherwise).

3.9. **Voluntary Adjustment by Company.** Subject to the rules and regulations of the Trading Market and the consent of the Holders of a majority in interest of the Warrants then outstanding, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors.

3.10. **Stockholder Approval.** The Company shall (a) hold a special meeting of stockholders (which may also be at the annual meeting of stockholders) at the earliest practicable date after the date hereof, or (b) obtain by written consent the Stockholder Approval, but in no event later than twenty (20) days (which time period, for the avoidance of doubt, does not include the time required to file and mail an information statement on Schedule 14C with respect to such written consent as required under the Exchange Act), after the Closing Date for the purpose of obtaining Stockholder Approval, if required to effect the purpose thereof, with the recommendation of the Board that such proposal be approved, and the Company shall, if applicable, solicit proxies from its stockholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Stockholder Approval, and officers, directors and stockholders subject to Lock-Up Agreement pursuant to Section 8.9 of the Underwriting Agreement shall, if applicable, cast their proxies in favor of such proposal. If the Company does not obtain Stockholder Approval at the first meeting or by written consent, the Company shall call a meeting every twenty (20) days thereafter to seek Stockholder Approval until the earlier of the date Stockholder Approval is obtained or the Warrants are no longer outstanding.

3.11. **Reserved.**

4. **Transfer of Warrant.**

4.1. **Transferability.** Subject to compliance with any applicable securities laws, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto as Exhibit 2.4.6 duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

4.2. **New Warrants.** If this Warrant is not held in global form through DTC (or any successor depository), this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4.1, as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

4.3. **Warrant Register.** The Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the "**Warrant Register**"), in the name of the record Holder hereof from time to time. The Company and the Warrant 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.

5. **Miscellaneous.**

5.1. **No Rights as Stockholder until Exercise; No Settlement in Cash.** This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2.4.1, except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a “cashless exercise” pursuant to Section 2.3 or to receive cash payments pursuant to Section 2.4.1 and Section 2.4.4 herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

5.2. **Loss, Theft, Destruction or Mutilation of Warrant.** The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

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

5.4. **Authorized Shares.**

5.4.1. **Reservation of Authorized and Unissued Shares.** The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares of Common Stock to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable (which means that no further sums are required to be paid by the holders thereof in connection with the issue thereof) and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

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

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

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

5.6. **Restrictions.** The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

5.7. **Nonwaiver and Expenses.** No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies, notwithstanding the fact that the right to exercise this Warrant terminates on the Termination Date. No provision of this Warrant shall be construed as a waiver by the Holder of any rights which the Holder may have under the federal securities laws and the rules and regulations of the Commission thereunder. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

5.8. **Notices.** Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 1177 Avenue of the Americas, 5th Floor, New York, NY 10036, Attention: Steve Slilaty, Chief Executive Officer, email address: steve.slilaty@sunshinebiopharma.com, or such other email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section 5.8 prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section 5.8 on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

5.9. **Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

5.10. **Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

5.11. **Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

5.12. **Amendment.** This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder.

5.13. **Severability.** Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

5.14. **Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

5.15. **Warrant Agent Agreement.** If this Warrant is held in global form through DTC (or any successor depositary), this Warrant is issued subject to the Warrant Agent Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agent Agreement, the provisions of this Warrant shall govern and be controlling.

[SBFM Investor Registered Series B Warrant Signature Page Follows]

[SBFM Investor Registered Series B Warrant Signature Page]

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

SUNSHINE BIOPHARMA, INC.

By: _____
Name: Steve Slilaty
Its: Chief Executive Officer

NOTICE OF EXERCISE

TO: SUNSHINE BIOPHARMA, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States.

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2.3, to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2.3.

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares of Common Stock.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
Address: _____
Phone Number: _____
Email Address: _____
Date: _____
Holder's Signature: _____
Holder's Address: _____

Exhibit 99.1

Sunshine Biopharma, Inc. Announces Pricing of \$10.0 Million Underwritten Public Offering

NEW YORK, FEBRUARY 13, 2024 -- Sunshine Biopharma, Inc. (NASDAQ: SBFM) (the “Company”), a pharmaceutical company offering and researching life-saving medicines in a variety of therapeutic areas including oncology and antivirals, today announced the pricing of a firm commitment underwritten public offering with gross proceeds to the Company expected to be approximately \$10.0 million, before deducting underwriting fees and other estimated offering expenses payable by the Company.

The offering consists of 71,428,571 Units, each consisting of one (1) share of common stock or Pre-Funded Warrant to purchase one share of common stock and 0.1 Series A Warrants to purchase one (1) share of common stock per warrant, and 0.2 Series B Warrants to purchase one (1) share of common stock per warrant. The public offering price per Unit is \$0.14 (or \$0.139 for each Unit with a Pre-Funded Warrant, which is equal to the public offering price per Unit with a share of common stock to be sold in the offering minus an exercise price of \$0.001 per Pre-Funded Warrant). The Pre-Funded Warrants will be immediately exercisable and may be exercised at any time until exercised in full. The initial exercise price of each Series A Warrant is \$2.10 per share of common stock or pursuant to an alternative cashless exercise option. The Series A Warrants are exercisable immediately and expire 30 months after the initial issuance date. The initial exercise price of each Series B Warrant is \$2.38 per share of common stock. The Series B Warrants are exercisable immediately and expire 60 months after the initial issuance date.

In addition, the Company has granted Aegis Capital Corp. (“Aegis”) a 45-day option to purchase up to an additional 15% of the total number of shares of common stock and/or Pre-Funded Warrants and/or Series A Warrants and/or Series B Warrants sold in the offering, solely to cover over-allotments, if any.

Aggregate gross proceeds to the Company are expected to be approximately \$10.0 million. The transaction is expected to close on or about February 15, 2024, subject to the satisfaction of customary closing conditions. The Company expects to use the net proceeds from the offering for general corporate purposes and working capital.

Aegis Capital Corp. is acting as the sole book-running manager for the offering. Sichenzia Ross Ference Carmel LLP is acting as counsel to the Company. Kaufman & Canoles, P.C. is acting as U.S. counsel to Aegis Capital Corp.

A registration statement on Form S-1 (No. 333-276817) previously filed with the U.S. Securities and Exchange Commission (the “SEC”) on February 1, 2024, as amended, was declared effective by the SEC on February 12, 2024. The offering is being made only by means of a prospectus. A final prospectus describing the terms of the offering will be filed with the SEC and will be available on the SEC’s website at www.sec.gov. Electronic copies of the final prospectus may be obtained, when available, by contacting Aegis Capital Corp., Attention: Syndicate Department, 1345 Avenue of the Americas, 27th floor, New York, NY 10105, by email at syndicate@aegiscap.com, or by telephone at +1 (212) 813-1010. Before investing in this offering, interested parties should read in their entirety the prospectus, which provides more information about the Company and such offering.

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

About Sunshine Biopharma, Inc.

Sunshine Biopharma through its subsidiary Nora Pharma Inc. has 51 generic prescription drugs on the market in Canada and 32 additional drugs scheduled to be launched in Canada in 2024 and 2025. In addition, Sunshine Biopharma is conducting a proprietary drug development program which is comprised of (i) K1.1 mRNA for liver cancer, and (ii) PLpro protease inhibitor for SARS Coronavirus infections. For more information, please visit: www.sunshinebiopharma.com.

Forward-Looking Statements

This press release may contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, each as amended. Forward-looking statements include all statements that do not relate solely to historical or current facts, including without limitation statements regarding the Company’s product development and business prospects, and can be identified by the use of words such as “may,” “will,” “expect,” “project,” “estimate,” “anticipate,” “plan,” “believe,” “potential,” “should,” “continue” or the negative versions of those words or other comparable words. Forward-looking statements are not guarantees of future actions or performance. These forward-looking statements are based on information currently available to the Company and its current plans or expectations and are subject to a number of risks and uncertainties that could significantly affect current plans. Should one or more of these risks or uncertainties materialize, or the underlying assumptions prove incorrect, actual results may differ significantly from those anticipated, believed, estimated, expected, intended, or planned. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, the Company cannot guarantee future results, performance, or achievements. Except as required by applicable law, including the securities laws of the United States, the Company does not intend to update any of the forward-looking statements to conform these statements to actual results.

For Additional Information:

Sunshine Biopharma Contact:
Camille Sebaaly, CFO
Direct Line: 514-814-0464
camille.sebaaly@sunshinebiopharma.com

Exhibit 99.2

Sunshine Biopharma, Inc. Announces Closing of \$10.0 Million Underwritten Public Offering

NEW YORK, NY / ACCESSWIRE / February 15, 2024 / Sunshine Biopharma, Inc. (NASDAQ:SBFM) (the “Company”), a pharmaceutical company offering and researching life-saving medicines in a variety of therapeutic areas including oncology and antivirals, today announced the closing of a firm commitment underwritten public offering with gross proceeds to the Company of approximately \$10.0 million, before deducting underwriting discounts and other estimated expenses payable by the Company.

The offering consisted of 71,428,571 Units, consisting of (a) 26,428,571 Common Units, with each Common Unit consisting of one share of our common stock, \$0.001 par value per share, one-tenth (1/10) of a Series A warrant to purchase one share of common stock (“Series A Warrant”) and two-tenths (2/10) of a Series B warrant to purchase one share of common stock (“Series B Warrant”), and (b) 45,000,000 Pre-Funded Units, with each Pre-Funded Unit consisting of one pre-funded warrant to purchase one share of common stock, one-tenth of a Series A Warrant and two-tenths of a Series B Warrant. The Pre-Funded Warrants are immediately exercisable and may be exercised at any time until exercised in full. The initial exercise price of each Series A Warrant is \$2.10 per share of common stock or pursuant to an alternative cashless exercise option. The Series A Warrants are exercisable immediately and expire 30 months after the initial issuance date. The initial exercise price of each Series B Warrant is \$2.38 per share of common stock. The Series B Warrants are exercisable immediately and expire 60 months after the initial issuance date.

The Company expects to use the net proceeds from the offering for general corporate purposes and working capital.

In addition, the Company has granted Aegis Capital Corp. (“Aegis”) a 45-day option to purchase up to an additional 15% of the total number of shares of common stock and/or Pre-Funded Warrants and/or Series A Warrants and/or Series B Warrants sold in the offering, solely to cover over-allotments, if any. On February 15, 2024, Aegis partially exercised its over-allotment option consisting of 2,491,071 Series A and Series B Warrants.

Aegis Capital Corp. acted as the sole book-running manager for the offering. Sichenzia Ross Ference Carmel LLP acted as counsel to the Company. Kaufman & Canoles, P.C. acted as U.S. counsel to Aegis Capital Corp.

A registration statement on Form S-1 (No. 333-276817) previously filed with the U.S. Securities and Exchange Commission (the “SEC”) on February 1, 2024, as amended, was declared effective by the SEC on February 12, 2024. A final prospectus describing the terms of the offering has been filed with the SEC and is available on the SEC’s website located at www.sec.gov. Electronic copies of the final prospectus may be obtained by contacting Aegis Capital Corp., Attention: Syndicate Department, 1345 Avenue of the Americas, 27th floor, New York, NY 10105, by email at syndicate@aegiscap.com, or by telephone at (212) 813-1010.

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

About Sunshine Biopharma, Inc.

Sunshine Biopharma through its subsidiary Nora Pharma Inc. has 51 generic prescription drugs on the market in Canada and 32 additional drugs scheduled to be launched in Canada in 2024 and 2025. In addition, Sunshine Biopharma is conducting a proprietary drug development program which is comprised of (i) K1.1 mRNA for liver cancer, and (ii) PLpro protease inhibitor for SARS Coronavirus infections. For more information, please visit: www.sunshinebiopharma.com.

Forward-Looking Statements

This press release may contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, each as amended. Forward-looking statements include all statements that do not relate solely to historical or current facts, including without limitation statements regarding the Company's product development and business prospects, and can be identified by the use of words such as "may," "will," "expect," "project," "estimate," "anticipate," "plan," "believe," "potential," "should," "continue" or the negative versions of those words or other comparable words. Forward-looking statements are not guarantees of future actions or performance. These forward-looking statements are based on information currently available to the Company and its current plans or expectations and are subject to a number of risks and uncertainties that could significantly affect current plans. Should one or more of these risks or uncertainties materialize, or the underlying assumptions prove incorrect, actual results may differ significantly from those anticipated, believed, estimated, expected, intended, or planned. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, the Company cannot guarantee future results, performance, or achievements. Except as required by applicable law, including the securities laws of the United States, the Company does not intend to update any of the forward-looking statements to conform these statements to actual results.

For Additional Information:

Sunshine Biopharma Contact:
Camille Sebaaly, CFO
Direct Line: 514-814-0464
camille.sebaaly@sunshinebiopharma.com
SOURCE: Sunshine Biopharma, Inc.