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

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Amendment No. 2  
**FORM S-1**  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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**SONNET BIOTHERAPEUTICS HOLDINGS, INC.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code Number)

**20-2932652**  
(I.R.S Employer  
Identification Number)

**100 Overlook Center, Suite 102**  
**Princeton, New Jersey 08540**  
**Telephone: 609-375-2227**  
(Address, including zip code, and telephone number,  
including area code, of registrant's principal executive offices)

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**Pankaj Mohan, Ph.D.**  
**CEO and Chairman**  
**Sonnet BioTherapeutics Holdings, Inc.**  
**100 Overlook Center, Suite 102**  
**Princeton, New Jersey 08540**  
**Telephone: (609) 375-2227**  
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including area code, of agent for service)

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**Approximate date of commencement of proposed sale to the public:**  
**As soon as practicable after the effective date of this registration statement.**

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

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 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

**SUBJECT TO COMPLETION, DATED OCTOBER 4, 2023**

**PRELIMINARY PROSPECTUS**



**3,311,258 Shares of Common Stock**  
**3,311,258 Pre-Funded Warrants to Purchase up to 3,311,258 Shares of Common Stock**  
**6,622,516 Common Warrants to Purchase up to 6,622,516 Shares of Common Stock**  
**99,337 Underwriter Warrants to Purchase up to 99,337 Shares of Common Stock**  
**3,311,258 Shares of Common Stock issuable upon exercise of the Pre-Funded Warrants**  
**6,622,516 Shares of Common Stock issuable upon exercise of the Common Warrants**  
**99,337 Shares of Common Stock issuable upon exercise of the Underwriter Warrants**

We are offering 3,311,258 shares of our common stock and common warrants to purchase an aggregate of 6,622,516 shares of our common stock (and the shares of common stock that are issuable from time to time upon exercise of the common warrants). We are also offering to certain purchasers whose purchase of shares of common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock immediately following the consummation of this offering, the opportunity to purchase, if any such purchaser so chooses, pre-funded warrants to purchase shares of our common stock, in lieu of shares of common stock that would otherwise result in such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock. Each pre-funded warrant will be exercisable for one share of our common stock. The purchase price of each pre-funded warrant and accompanying common warrant will be equal to the price at which a share of common stock and accompanying common warrant are sold to the public in this offering, minus \$0.0001, and the exercise price of each pre-funded warrant will be \$0.0001 per share. The pre-funded warrants will be immediately exercisable and may be exercised at any time until all of the pre-funded warrants are exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants sold in this offering. Each share of common stock and pre-funded warrant is being sold together with a common warrant to purchase one share of our common stock at an exercise price of \$ per share (representing 100% of the price at which a share of common stock and accompanying common warrant are sold to the public in this offering). The common warrants will be exercisable immediately and will expire five years from the date of issuance. For each pre-funded warrant we sell, the number of shares of common stock we are offering will be decreased on a one-for-one basis. Because we will issue a common warrant for each share of our common stock and for each pre-funded warrant to purchase one share of our common stock sold in this offering, the number of common warrants sold in this offering will not change as a result of a change in the mix of the shares of our common stock and pre-funded warrants sold. The shares of common stock and pre-funded warrants, and the accompanying common warrants, can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance.

Our common stock is listed on The Nasdaq Capital Market under the symbol "SONN." On October 3, 2023 the last reported sale price of our common stock on The Nasdaq Capital Market was \$2.84 per share. There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for a listing of the pre-funded warrants on any national securities exchange. Without an active trading market, the liquidity of the pre-funded warrants will be limited.

The public offering price per share of common stock and accompanying common warrant and any pre-funded warrant and accompanying common warrant, as the case may be, will be determined by us at the time of pricing, may be at a discount to the current market price, and the recent market price used throughout this prospectus may not be indicative of the final offering price.

You should read this prospectus, together with additional information described under the headings "Information Incorporated by Reference" and "Where You Can Find More Information," carefully before you invest in any of our securities.

**Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 5 of this prospectus and in the documents incorporated by reference into this prospectus for a discussion of risks that should be considered in connection with an investment in our securities.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

	<u>Per Share</u>	<u>Per Pre-Funded Warrant</u>	<u>Per Common Warrant</u>	<u>Total</u>
Public offering price	\$	\$	\$	\$
Underwriting discounts and commissions (1)	\$	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$	\$

(1) See "Underwriting" for additional information regarding underwriting compensation.

The delivery of the securities offered hereby to purchasers is expected to be made on or about \_\_\_\_\_, 2023.

*Joint Book-Running Managers*

**Chardan**

**Ladenburg Thalmann**

**The date of this prospectus is \_\_\_\_\_, 2023.**

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## ABOUT THIS PROSPECTUS

We incorporate by reference important information into this prospectus. You may obtain the information incorporated by reference without charge by following the instructions under “Where You Can Find More Information.” You should carefully read this prospectus as well as additional information described under “Information Incorporated by Reference,” before deciding to invest in our securities.

Neither we nor the underwriters have authorized anyone to provide you with additional information or information different from that contained or incorporated by reference in this prospectus filed with the Securities and Exchange Commission (the “SEC”). We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The underwriters are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The information contained in this prospectus, or any document incorporated by reference in this prospectus, is accurate only as of the date of those respective documents, regardless of the time of delivery of this prospectus or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

The information incorporated by reference or provided in this prospectus contains statistical data and estimates, including those relating to market size and competitive position of the markets in which we participate, that we obtained from our own internal estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Industry publications, studies and surveys generally state that they have been obtained from sources believed to be reliable. While we believe our internal company research is reliable and the definitions of our market and industry are appropriate, neither this research nor these definitions have been verified by any independent source.

For investors outside the United States (“U.S.”): We and the underwriters have not done anything that would permit this offering or the possession or distribution of this prospectus in any jurisdiction where action for those purposes is required, other than in the U.S. Persons outside the U.S. who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside of the U.S.

## CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties for purposes of the safe harbor provided by the Private Securities Litigation Reform Act of 1995. All statements contained in this prospectus other than statements of historical fact, including statements regarding our strategy, future operations, future financial position, liquidity, future revenue, projected expenses, results of operations, expectations concerning the timing and our ability to commence and subsequently report data from planned non-clinical studies and clinical trials, prospects, plans and objectives of management are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “plan,” “expect,” “predict,” “potential,” “opportunity,” “goals,” or “should,” and similar expressions are intended to identify forward-looking statements. Such statements are based on management’s current expectations and involve risks and uncertainties. Actual results and performance could differ materially from those projected in the forward-looking statements as a result of many factors.

We based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in “Risk Factors” in this prospectus, and under a similar heading in any other annual, periodic or current report incorporated by reference into this prospectus or that we may file with the SEC in the future. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge quickly and from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this prospectus, may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. All forward-looking statements are qualified in their entirety by this cautionary statement.

You should also read carefully the factors described in the “Risk Factors” section of this prospectus, and under a similar heading in any other annual, periodic or current report incorporated by reference into this prospectus, to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. You are advised to consult any further disclosures we make on related subjects in our future public filings.

## PROSPECTUS SUMMARY

*This summary highlights information about our company, this offering and information contained in greater detail in other parts of this prospectus or incorporated by reference into this prospectus from our filings with the SEC listed in the section entitled “Information Incorporated by Reference.” Because it is only a summary, it does not contain all of the information that you should consider before purchasing our securities in this offering and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire prospectus, the registration statement of which this prospectus is a part, and the information incorporated by reference into this prospectus in their entirety, including the “Risk Factors” and our financial statements and the related notes incorporated by reference into this prospectus, before purchasing our securities in this offering.*

*Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus to “the Company,” “we,” “us” and “our” refer to Sonnet BioTherapeutics Holdings, Inc. and our consolidated subsidiaries.*

On August 31, 2023, we effected a reverse stock split of our issued and outstanding common stock, par value \$0.0001 per share, at a ratio of 1-for-22 and on September 16, 2022, we effected a reverse stock split of our issued and outstanding common stock at a ratio of 1-for-14. All of our historical share and per share information related to issued and outstanding common stock and outstanding options and warrants exercisable for common stock included in this prospectus have been adjusted, on a retroactive basis, to reflect the reverse stock splits. The information dated before August 31, 2023 incorporated by reference into this prospectus has not been adjusted to reflect the reverse stock splits. See “Corporate Information.”

## Corporate Overview

Sonnet BioTherapeutics Holdings, Inc. (“we,” “us,” “our” or the “Company”), is a clinical stage, oncology-focused biotechnology company with a proprietary platform for innovating biologic medicines of single- or bi-specific action. Known as F<sub>H</sub>AB™ (Fully Human Albumin Binding), the technology utilizes a fully human single chain antibody fragment that binds to and “hitch-hikes” on human serum albumin for transport to target tissues. We designed the construct to improve drug accumulation in specific tissues, as well as to extend the duration of activity in the body. F<sub>H</sub>AB development candidates are produced in a mammalian cell culture, which enables glycosylation, thereby reducing the risk of immunogenicity. We believe our F<sub>H</sub>AB technology, for which we received a U.S. patent in June 2021, is a distinguishing feature of our biopharmaceutical platform that is well suited for future drug development across a range of human disease areas, including in oncology, autoimmune, pathogenic, inflammatory, and hematological conditions.

## Recent Developments

### Registered Direct Offering and Private Placement

On June 28, 2023, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell and issue, in (i) a registered direct offering (the “RD Offering”), an aggregate of (a) 166,363 shares of common stock at a purchase price of \$9.90 per share and accompanying Private Warrant, and (b) 60,909 pre-funded warrants (the “Pre-Funded Warrants”) to purchase up to an aggregate of 60,909 shares of common stock (the “Pre-Funded Warrant Shares”) at a purchase price of \$9.8978 per Pre-Funded Warrant and accompanying Private Warrant and (ii) in a concurrent private placement (the “Private Placement” and together with the RD Offering, the “June 2023 Offering”), Private Warrants to purchase up to 227,272 shares of common stock. The Private Warrants will be exercisable as of December 30, 2023 at an exercise price of \$14.8478 per share and will expire three and one-half years from the date of issuance. The closing of the issuance and sale of these securities was consummated on June 30, 2023. The gross proceeds from the offering, prior to deducting offering expenses and placement agent fees and expenses payable by us, was approximately \$2.25 million.

Pursuant to a placement agency agreement dated as of June 28, 2023, we engaged Chardan Capital Markets, LLC (“Chardan”) to act as our exclusive placement agent in connection with the June 2023 Offering. We paid to Chardan (i) a cash fee equal to 8.0% of the aggregate gross proceeds of the June 2023 Offering, excluding the proceeds, if any, from the exercise of the Private Warrants and (ii) a non-accountable expense allowance of 0.5% of the aggregate gross proceeds of the June 2023 Offering, and (iii) reimbursed Chardan for certain expenses and legal fees up to \$35,000. In addition, we issued to Chardan or its designees, PA Warrants to purchase up to 6,818 shares of common stock. The PA Warrants will be exercisable as of December 30, 2023 and have a term of exercise equal to three and a half years from the date of issuance, with an exercise price of \$14.8478 per share.

## Corporate Information

We were organized on October 21, 1999, under the name Tulvine Systems, Inc., under the laws of the State of Delaware. On April 25, 2005, Tulvine Systems, Inc. formed a wholly owned subsidiary, Chanticleer Holdings, Inc., and on May 2, 2005, Tulvine Systems, Inc. merged with, and changed its name to, Chanticleer Holdings, Inc. On April 1, 2020, we completed our business combination with Sonnet BioTherapeutics, Inc. (“Sonnet”), in accordance with the terms of the Agreement and Plan of Merger, dated as of October 10, 2019, as amended, by and among us, Sonnet and Biosub Inc., a wholly-owned subsidiary of the Company (“Merger Sub”) (the “Merger Agreement”), pursuant to which Merger Sub merged with and into Sonnet, with Sonnet surviving as a wholly owned subsidiary of us (the “Merger”). Under the terms of the Merger Agreement, we issued shares of common stock to Sonnet’s stockholders at an exchange rate of 0.106572 shares for each share of Sonnet common stock outstanding immediately prior to the Merger. In connection with the Merger, we changed our name from “Chanticleer Holdings, Inc.” to “Sonnet BioTherapeutics Holdings, Inc.,” and the business conducted by us became the business conducted by Sonnet.

On August 31, 2023, we effected a reverse stock split of our issued and outstanding common stock, par value \$0.0001 per share, at a ratio of 1-for-22 (the “2023 Reverse Stock Split”), and on September 16, 2022, we effected a reverse stock split of our issued and outstanding common stock at a ratio of 1-for-14 (the “2022 Reverse Stock Split”) and, together with the 2023 Reverse Stock Split, the “Reverse Stock Splits”). Shares of common stock underlying outstanding stock options and other equity instruments convertible into common stock were proportionately reduced and the respective exercise prices, if applicable, were proportionately increased in accordance with the terms of the agreements governing such securities in connection with the Reverse Stock Splits. No fractional shares were issued in connection with the Reverse Stock Splits. Stockholders who would otherwise be entitled to a fractional share of common stock instead receive a proportional cash payment. All of our historical share and per share information related to issued and outstanding common stock and outstanding options and warrants exercisable for common stock included in this prospectus have been adjusted, on a retroactive basis, to reflect the Reverse Stock Splits. The information dated before August 31, 2023 incorporated by reference into this prospectus has not been adjusted to reflect the 2023 Reverse Stock Split.

Our principal executive offices are located at 100 Overlook Center, Suite 102, Princeton, New Jersey 08540, and our telephone number is (609) 375-2227. Our website is [www.sonnetbio.com](http://www.sonnetbio.com). Our website and the information contained on, or that can be accessed through, our website shall not be deemed to be incorporated by reference in, and are not considered part of, this prospectus supplement or the accompanying prospectus. You should not rely on any such information in making your decision whether to purchase our common stock.

## The Offering

### Common Stock to be Offered

3,311,258 shares, based on the sale of our common stock at an assumed combined public offering price of \$3.02 per share of common stock and accompanying common warrant, which is the last reported sale price of our common stock on September 25, 2023, and assuming no sale of any pre-funded warrants.

**Pre-funded Warrants to be Offered**

We are also offering to certain purchasers whose purchase of shares of common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock immediately following the consummation of this offering, the opportunity to purchase, if such purchasers so choose, pre-funded warrants to purchase shares of common stock, in lieu of shares of common stock that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock. Each pre-funded warrant will be exercisable for one share of our common stock. The purchase price of each pre-funded warrant and accompanying common warrant will equal the price at which the share of common stock and accompanying common warrant are being sold to the public in this offering, minus \$0.0001, and the exercise price of each pre-funded warrant will be \$0.0001 per share. The pre-funded warrants will be exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants sold in this offering. For each pre-funded warrant we sell, the number of shares of common stock we are offering will be decreased on a one-for-one basis. Because we will issue a common warrant for each share of our common stock and for each pre-funded warrant to purchase one share of our common stock sold in this offering, the number of common warrants sold in this offering will not change as a result of a change in the mix of the shares of our common stock and pre-funded warrants sold.

**Common Warrants to be Offered**

Common warrants to purchase an aggregate of 6,622,516 shares of our common stock, based on the sale of our common stock at an assumed combined public offering price of \$3.02 per share of common stock and accompanying common warrant, which is the last reported sale price of our common stock on The Nasdaq Capital Market on September 25, 2023. Each share of our common stock and each pre-funded warrant to purchase one share of our common stock is being sold together with a common warrant to purchase one share of our common stock. Each common warrant will have an exercise price of \$ per share (representing 100% of the price at which a share of common stock and accompanying common warrant are sold to the public in this offering), will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The shares of common stock and pre-funded warrants, and the accompanying common warrants, as the case may be, can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the common warrants.

**Common Stock to be Outstanding Immediately After this Offering (1)**

5,061,684 shares, assuming none of the common warrants issued in this offering are exercised, and based on the sale of our common stock at an assumed combined public offering price of \$3.02 per share of common stock, which is the last reported sale price of our common stock on The Nasdaq Capital Market on September 25, 2023, and no sale of any pre-funded warrants.

**Underwriter Warrants to be Offered**

We have agreed to issue to the underwriters warrants (the "underwriter warrants") to purchase up to shares of common stock (representing 3% of the aggregate number of shares sold in this offering, including upon any exercise of the underwriters' option to purchase additional shares of common stock, and including the number of shares of common stock underlying the pre-funded warrants), at an exercise price of \$ per share (representing 125% of the price at which a share of common stock and accompanying common warrant are sold to the public in this offering). The underwriter warrants will be exercisable immediately and for five years from the date of commencement of sales in this offering. The issuance of the underwriter warrants and the shares issuable upon exercise of the underwriter warrants are registered on the registration statement of which this prospectus forms a part.

**Use of Proceeds**

We estimate that the net proceeds from this offering will be approximately \$8.8 million, based on an assumed combined public offering price of \$3.02 per share of common stock and accompanying common warrant, which was the last reported sales price of our common stock on The Nasdaq Capital Market on September 25, 2023, and assuming no sale of any pre-funded warrants, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the common warrants in this offering.

We currently intend to use the net proceeds from this offering for research and development, including clinical trials, working capital and general corporate purposes. See "Use of Proceeds" for additional information.

**Risk Factors**

An investment in our securities involves a high degree of risk. See "Risk Factors" beginning on page 5 of this prospectus and the other information included and incorporated by reference in this prospectus for a discussion of the risk factors you should carefully consider before deciding to invest in our securities.

**National Securities Exchange Listing**

Our common stock is listed on The Nasdaq Capital Market under the symbol "SONN." There is no established public trading market for the pre-funded warrants or common warrants, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants or common warrants on any national securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants or common warrants will be limited.

(1) The number of shares of our common stock that will be outstanding immediately after this offering is based on 1,750,426 shares of common stock outstanding as of September 11, 2023, and assumes the sale and issuance by us of 3,311,258 shares of common stock (and no sale of any pre-funded warrants) in this offering and excludes:

- 2,326 shares of common stock underlying restricted stock units outstanding as of September 11, 2023;
- 14,480 shares of common stock reserved for future issuance under the 2020 Omnibus Equity Incentive Plan as of September 11, 2023;
- 730,333 shares of common stock issuable upon the exercise of warrants outstanding as of September 11, 2023, with a weighted average exercise price of \$115.60 per share;
- shares of common stock issuable upon the exercise of the pre-funded warrants issued in this offering, if any;
- up to 6,622,516 shares of common stock issuable upon the exercise of the common warrants issued in this offering; and
- 99,337 shares of common stock issuable upon the exercise of the underwriter warrants issued in this offering.

## RISK FACTORS

*Investing in our securities involves a high degree of risk. We urge you to carefully consider all of the information contained in this prospectus and other information which may be incorporated by reference in this prospectus as provided under "Information Incorporated by Reference." In particular, you should consider the risk factors below, together with those under the heading "Risk Factors" in our most recent Annual Report on Form 10-K, which is incorporated by reference into this prospectus, as those risk factors are amended or supplemented by our subsequent filings with the SEC. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described below or in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. As a result, you could lose all or part of your investment.*

### RISKS RELATED TO THIS OFFERING

***If you purchase shares of common stock in this offering, you will experience immediate and substantial dilution in your investment. You will experience further dilution if we issue additional equity or equity-linked securities in the future.***

Because the price per share of our common stock being offered is substantially higher than the as adjusted net tangible book value per share of our common stock, you will suffer immediate and substantial dilution with respect to the net tangible book value of the common stock you purchase in this offering. Based on an assumed combined public offering price of \$3.02 per share of common stock and accompanying common warrant being sold in this offering, and our as adjusted net tangible book value as of June 30, 2023 of \$2.42 per share, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$0.60 per share with respect to the as adjusted net tangible book value of the common stock. See the section entitled "Dilution" for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

If we issue additional shares of common stock, or securities convertible into or exchangeable or exercisable for shares of common stock, our stockholders, including investors who purchase shares of common stock and/or pre-funded warrants and accompanying common warrants in this offering, will experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders.

***Future sales of substantial amounts of our common stock or securities convertible into or exchangeable or exercisable for shares of common stock, either by us or by our existing stockholders, or the possibility that such sales could occur, could adversely affect the market price of our common stock.***

Future sales in the public market of shares of our common stock or securities convertible into or exchangeable or exercisable for shares of common stock, including shares referred to in the foregoing risk factor, shares held by our existing stockholders or shares issued upon exercise of our outstanding stock options or warrants, or the perception by the market that these sales could occur, could lower the market price of our common stock or make it difficult for us to raise additional capital.

***There is no public market for the pre-funded warrants or common warrants being offered in this offering.***

There is no established public trading market for the pre-funded warrants or common warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants or common warrants on any securities exchange or nationally recognized trading system, including The Nasdaq Capital Market. Without an active market, the liquidity of the pre-funded warrants and common warrants will be limited.

***Holders of pre-funded warrants and common warrants purchased in this offering will have no rights as common stockholders until such holders exercise such warrants and acquire our common stock.***

Until holders of pre-funded warrants or common warrants acquire shares of our common stock upon exercise of such warrants, holders of pre-funded warrants or common warrants will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of the pre-funded warrants or common warrants, the holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

***We will have broad discretion in the use of our existing cash and cash equivalents, including the proceeds from this offering, and may invest or spend our cash in ways with which you do not agree and in ways that may not increase the value of your investment.***

We will have broad discretion over the use of our cash and cash equivalents, including the proceeds from this offering. You may not agree with our decisions, and our use of cash may not yield any return on your investment. We intend to use the net proceeds from this offering for research and development, including clinical trials, working capital and general corporate purposes. Our failure to apply the net proceeds from this offering effectively could compromise our ability to pursue our growth strategy and we might not be able to yield a significant return, if any, on our investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

## USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$8.8 million from the sale of the securities offered by us in this offering, based on an assumed combined public offering price of \$3.02 per share and accompanying common warrant, which was the last reported sales price of our common stock on The Nasdaq Capital Market on September 25, 2023, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, excluding the proceeds, if any, from the exercise of the common warrants issued in this offering.

The foregoing discussion assumes no sale of pre-funded warrants, which if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis.

We currently intend to use the net proceeds from this offering for research and development, including clinical trials, working capital and general corporate purposes. See "Risk Factors" for a discussion of certain risks that may affect our intended use of the net proceeds from this offering.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot currently allocate specific percentages of the net proceeds that we may use for the purposes specified above, and we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to obtain additional financing, the progress, cost and results of our preclinical

and clinical development programs, and whether we are able to enter into future licensing or collaboration arrangements.

Pending the use of the net proceeds from this offering, we intend to invest the net proceeds in investment-grade, interest-bearing instruments, certificates of deposit or direct or guaranteed obligations of the U.S.

A \$0.50 increase or decrease in the assumed public offering price of \$3.02 per share would increase or decrease the net proceeds to us from this offering by approximately \$1.5 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, a 0.5 million share increase or decrease in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease the net proceeds to us by approximately \$1.4 million, based on the assumed public offering price of \$3.02 per share remaining the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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## DILUTION

If you invest in our securities, your ownership interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of our common stock immediately after the closing of this offering.

Our historical net tangible book value as of June 30, 2023 was \$3.4 million, or \$1.96 per share of common stock. Our historical net tangible book value is the amount of our total tangible assets less our liabilities. Historical net tangible book value per common share is our historical net tangible book value divided by the number of shares of common stock outstanding as of June 30, 2023.

After giving effect to the sale of 3,311,258 shares of common stock and the accompanying common warrants in this offering at an assumed combined public offering price of \$3.02 per share and accompanying common warrant, which was the last reported sale price of our common stock on The Nasdaq Capital Market on September 25, 2023, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, excluding the proceeds, if any, from the exercise of the common warrants issued in this offering, and assuming no sale of pre-funded warrants in this offering, our as adjusted net tangible book value as of June 30, 2023 would be \$12.2 million, or \$2.42 per share of common stock. This amount represents an immediate increase in net tangible book value of \$0.46 per share to our existing stockholders and an immediate dilution of \$0.60 per share to investors participating in this offering. We determine dilution per share to investors participating in this offering by subtracting as adjusted net tangible book value per share after this offering from the assumed combined public offering price per share paid by investors participating in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Assumed combined public offering price per share and accompanying common warrant		\$	3.02
Historical net tangible book value per share as of June 30, 2023	\$	1.96	
Increase in net tangible book value per share attributable to this offering		0.46	
Net tangible book value per share after giving effect to this offering			2.42
Dilution per share to new investors in this offering	\$		0.60

Each \$0.50 increase or decrease in the assumed combined public offering price of \$3.02 per share and accompanying common warrant, which was the last reported sale price of our common stock on The Nasdaq Capital Market on September 25, 2023, would increase or decrease the as adjusted net tangible book value per share by \$0.30 per share and the dilution per share to investors participating in this offering by \$0.20 per share, respectively, assuming that the number of shares and/or pre-funded warrants offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We may also increase or decrease the number of shares we are offering. An increase of 0.5 million in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase the as adjusted net tangible book value per share by approximately \$0.04 and decrease the dilution per share to new investors participating in this offering by approximately \$0.04, based on an assumed combined public offering price of \$3.02 per share and accompanying common warrant, which was the last reported sale price of our common stock on The Nasdaq Capital Market on September 25, 2023, remaining the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A reduction of 0.5 million in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease the as adjusted net tangible book value per share after this offering by approximately \$0.04 and increase the dilution per share to new investors participating in this offering by approximately \$0.04, based on an assumed combined public offering price of \$3.02 per share and accompanying common warrant, which was the last reported sale price of our common stock on The Nasdaq Capital Market on September 25, 2023, remaining the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The table and discussion above is based on 1,744,984 shares of common stock outstanding as of June 30, 2023 and excludes:

- 2,326 shares of common stock underlying unvested restricted stock units outstanding as of June 30, 2023;
- 5,516 shares of common stock subject to restricted stock awards granted as of June 30, 2023 but not yet issued;
- 14,480 shares of common stock reserved for future issuance under the 2020 Omnibus Equity Incentive Plan as of June 30, 2023;
- 730,333 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2023, with a weighted average exercise price of \$115.60 per share;
- shares of common stock issuable upon the exercise of the pre-funded warrants issued in this offering;
- shares of common stock issuable upon the exercise of the common warrants issued in this offering; and
- shares of common stock issuable upon the exercise of the underwriter warrants issued in this offering.

The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares and common warrants that we offer in this offering, and other terms of this offering determined at pricing. Except as indicated otherwise, the discussion and table above assume (i) no sale of pre-funded warrants, which, if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis and (ii) no exercise of common warrants accompanying the shares of common stock sold in this offering.

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## DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of:

- 125,000,000 shares of common stock, par value \$0.0001 per share; and
- 5,000,000 shares of preferred stock, par value \$0.0001 per share, of which, as of the date of this prospectus, none of which shares have been designated.

As of close of business on September 11, 2023, 1,750,426 shares of common stock were issued and outstanding and no shares of preferred stock were issued and outstanding.

The additional shares of our authorized stock available for issuance may be issued at times and under circumstances so as to have a dilutive effect on earnings per share and on the equity ownership of the holders of our common stock. The ability of our board of directors to issue additional shares of stock could enhance the board's ability to negotiate on behalf of the stockholders in a takeover situation but could also be used by the board to make a change-in-control more difficult, thereby denying stockholders the potential to sell their shares at a premium and entrenching current management. The following description is a summary of the material provisions of our capital stock. You should refer to our Certificate of Incorporation, as amended (the "Certificate of Incorporation") and Amended and Restated Bylaws (the "Bylaws"), both of which are on file with the SEC as exhibits to previous SEC filings, for additional information. The summary below is qualified by provisions of applicable law.

#### **Common Stock**

Holders of our common stock are each entitled to cast one vote for each share held of record on all matters presented to stockholders. Cumulative voting is not allowed; the holders of a majority of our outstanding shares of common stock may elect all directors. Holders of our common stock are entitled to receive such dividends as may be declared by our board out of funds legally available and, in the event of liquidation, to share pro rata in any distribution of our assets after payment of liabilities. Our directors are not obligated to declare a dividend. It is not anticipated that we will pay dividends in the foreseeable future. Holders of our do not have preemptive rights to subscribe to any additional shares we may issue in the future. There are no conversion, redemption, sinking fund or similar provisions regarding the common stock. All outstanding shares of common stock are fully paid and nonassessable.

The rights, preferences and privileges of holders of common stock are subject to the rights of the holders of any outstanding shares of preferred stock.

#### **Preferred Stock**

We are authorized to issue up to 5,000,000 shares of preferred stock, all of which are undesignated. Our board of directors has the authority to issue preferred stock in one or more classes or series and to fix the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, including dividend rights, conversion right, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any class or series, without further vote or action by the stockholders. Although we have no present plans to issue any other shares of preferred stock, the issuance of shares of preferred stock, or the issuance of rights to purchase such shares, could decrease the amount of earnings and assets available for distribution to the holders of common stock, could adversely affect the rights and powers, including voting rights, of the common stock, and could have the effect of delaying, deterring or preventing a change of control of us or an unsolicited acquisition proposal. The preferred stock may provide for an adjustment of the conversion price in the event of an issuance or deemed issuance at a price less than the applicable conversion price, subject to certain exceptions.

If we offer a specific series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;

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- the number of shares offered, the liquidation preference per share and the purchase price;
  - the dividend rate(s), period(s) and/or payment date(s), or method(s) of calculation for such dividends;
  - whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
  - the procedures for any auction and remarketing, if any;
  - the provisions for a sinking fund, if any;
  - the provisions for redemption, if applicable;
  - any listing of the preferred stock on any securities exchange or market;
  - whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price (or how it will be calculated) and conversion period;
  - whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated) and exchange period;
  - voting rights, if any, of the preferred stock;
  - a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
  - the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
  - any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs.

#### **Anti-takeover Effects of Delaware Law and our Certificate of Incorporation and Bylaws**

Our Certificate of Incorporation and Bylaws contain provisions that could have the effect of discouraging potential acquisition proposals or tender offers or delaying or preventing a change of control. These provisions are as follows:

- they provide that special meetings of stockholders may be called by the President, the board of directors or at the request by stockholders of record owning at least thirty-three and one-third (33 1/3%) percent of the issued and outstanding voting shares of our common stock;
- they do not include a provision for cumulative voting in the election of directors. Under cumulative voting, a minority stockholder holding a sufficient number of shares may be able to ensure the election of one or more directors. The absence of cumulative voting may have the effect of limiting the ability of minority stockholders to effect changes in our board of directors; and



- they allow us to issue, without stockholder approval, up to 5,000,000 shares of preferred stock that could adversely affect the rights and powers of the holders of our common stock.

We are subject to the provisions of Section 203 of the Delaware General Corporation Law, an anti-takeover law. Subject to certain exceptions, the statute prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder unless:

- prior to such date, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

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- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least eighty-five percent 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (1) by persons who are directors and also officers and (2) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least sixty-six and two-thirds percent 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, for purposes of Section 203, a “business combination” includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An “interested stockholder” is a person who, together with affiliates and associates, owns or, within three (3) years prior to the determination of interested stockholder status, owned fifteen percent (15%) or more of a corporation’s outstanding voting securities.

#### **Potential Effects of Authorized but Unissued Stock**

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, the board of directors has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the DGCL and subject to any limitations set forth in our Certificate of Incorporation. The purpose of authorizing the board of directors to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from acquiring, a majority of our outstanding voting stock.

#### **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Securities Transfer Corporation. The transfer agent address is Securities Transfer Corporation, 2901 N Dallas Parkway, Suite 380, Plano, TX 75093, (469) 633-0101.

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### **DESCRIPTION OF SECURITIES WE ARE OFFERING**

We are offering (i) 3,311,258 shares of our common stock or pre-funded warrants to purchase shares of our common stock and (ii) 6,622,516 common warrants to purchase up to an aggregate of 6,622,516 shares of our common stock. Each share of common stock or pre-funded warrant is being sold together with a common warrant to purchase one share of our common stock. The shares of common stock or pre-funded warrants and accompanying common warrants will be issued separately. We are also registering the shares of common stock issuable from time to time upon exercise of the pre-funded warrants and common warrants offered hereby.

#### **Common Stock**

The material terms and provisions of our common stock are described under the caption “Description of Capital Stock” in this prospectus.

#### **Pre-Funded Warrants**

*The following summary of certain terms and provisions of pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the pre-funded warrant, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants.*

**Duration and Exercise Price.** Each pre-funded warrant offered hereby will have an initial exercise price per share equal to \$0.0001. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The pre-funded warrants will be issued separately from the accompanying common warrants and may be transferred separately immediately thereafter.

**Exercisability.** The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). Purchasers of the pre-funded warrants in this offering may elect to deliver their exercise notice following the pricing of the offering and prior to the issuance of the pre-funded warrants at closing to have their pre-funded warrants exercised immediately upon issuance and receive shares of common stock underlying the pre-funded warrants upon closing of this offering. A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days’ prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder’s pre-funded warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Purchasers of pre-funded warrants in this offering may also elect prior to the issuance of the pre-funded warrants to have the initial exercise limitation set at 9.99% of our outstanding common stock. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will round down to the next whole share.

**Cashless Exercise.** If, at the time a holder exercises its pre-funded warrants, a registration statement registering the issuance of the shares of common stock underlying the pre-funded warrants under the Securities Act is not then effective or available, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise

in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants.

*Transferability.* Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer.

*Exchange Listing.* There is no trading market available for the pre-funded warrants on any securities exchange or nationally recognized trading system. We do not intend to list the pre-funded warrants on any securities exchange or nationally recognized trading system.

*Right as a Stockholder.* Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the pre-funded warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their pre-funded warrants.

*Fundamental Transaction.* In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction.

#### **Common Warrants**

*The following summary of certain terms and provisions of common warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the common warrants, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of common warrants for a complete description of the terms and conditions of the common warrants.*

*Duration and Exercise Price.* Each common warrant offered hereby will have an initial exercise price per share equal to \$ . The common warrants will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The common warrants will be issued separately from the common stock (or pre-funded warrants) and may be transferred separately immediately thereafter. A common warrant to purchase one share of our common stock will be issued for every share of common stock (or pre-funded warrant to purchase a share of common stock) purchased in this offering.

*Exercisability.* The common warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the common warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's common warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the common warrants. No fractional shares of common stock will be issued in connection with the exercise of a common warrant. In lieu of fractional shares, we will round down to the next whole share.

*Cashless Exercise.* If, at the time a holder exercises its common warrants, a registration statement registering the issuance of the shares of common stock underlying the common warrants under the Securities Act is not then effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the common warrants.

*Transferability.* Subject to applicable laws, a common warrant may be transferred at the option of the holder upon surrender of the common warrant to us together with the appropriate instruments of transfer.

*Exchange Listing.* There is no established public trading market for the common warrants, and we do not expect a market to develop. In addition, we do not intend to list the common warrants on any securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the common warrants will be limited.

*Right as a Stockholder.* Except as otherwise provided in the common warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the common warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their common warrants.

*Fundamental Transaction.* In the event of a fundamental transaction, as described in the form of common warrant, and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the common warrants will be entitled to receive upon exercise of the common warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the common warrants immediately prior to such fundamental transaction. In the event of a Change of Control (as defined in each common warrant) approved by our Board of Directors, the holders of the common warrants have the right to require us or a successor entity to redeem the common warrants for cash in the amount of the Black-Scholes Value (as defined in each common warrant) of the unexercised portion of the common warrants on the date of the consummation of the Change of Control. In the event of a Change of Control which is not approved by our Board of Directors, the holders of the common warrants have the right to require us or a successor entity to redeem the common warrants for the consideration paid in the Change of Control in the amount of the Black-Scholes Value of the unexercised portion of the common warrants on the date of the consummation of the Change of Control.

#### **UNDERWRITING**

We entered into an underwriting agreement with Chardan Capital Markets, LLC ("Chardan") and Ladenburg Thalmann & Co. Inc. ("Ladenburg"), as representatives of the several underwriters (the "Representatives"), relating to this offering. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters and each of the underwriters has agreed to purchase, severally and not jointly, the number of shares, pre-funded warrants and common warrants set forth opposite its name in the following table:

	<b>Number of Shares of Common Stock</b>	<b>Number of Pre-Funded Warrants</b>	<b>Number of Common Warrants</b>
Chardan Capital Markets, LLC			
Ladenburg Thalmann & Co. Inc.			
<b>TOTAL</b>			

The underwriters have agreed to purchase all of the shares of common stock and/or pre-funded warrants and accompanying common warrants offered by us, if any are purchased. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the obligations of the underwriters are subject to customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

The underwriters have advised us that they propose initially to offer the shares of common stock and/or pre-funded warrants and accompanying common warrants to purchase shares of common stock to the public at the public offering price set forth on the cover page of this prospectus and to dealers at a price less a concession not in excess of \$ per share and accompanying common warrant or \$ per pre-funded warrant and accompanying common warrant, based on the combined public offering price per share and accompanying common warrant or pre-funded warrant and accompanying common warrant. After the shares of common stock and/or pre-funded warrants and accompanying common warrants are released for sale to the public, the underwriters may change the offering price, the concession, and other selling terms at various times.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the securities in this offering subject to prior sale, when, as and if issued to and accepted by them subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify orders to the public, and to reject orders in whole or in part.

#### Discounts, Commissions and Reimbursement

The following table provides information regarding the amount of the discounts and commissions to be paid to the underwriters by us.

	Per Share and Accompanying Common Warrant	Per Pre-Funded Warrant and Accompanying Common Warrant	Total
Public offering price	\$	\$	\$
Underwriting discounts and commissions (1)	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

(1) We have agreed to pay the underwriters a commission of 7% of the gross proceeds of this offering.

The Company has agreed to pay all reasonable out-of-pocket expenses of the Underwriters relating to this offering, including a maximum of \$65,000 for the fees and disbursements of counsel to the Underwriters. The Company has also agreed to pay to the Representatives, at the closing of this offering, a non-accountable expense allowance equal to 1% of the gross proceeds of this offering.

We estimate that our total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$400,000.

#### Underwriter Warrants

We have agreed to issue to the Representatives warrants (the "underwriter warrants") to purchase up to shares of common stock (representing 3% of the aggregate number of shares sold in this offering, including the number of shares of common stock underlying the pre-funded warrants), at an exercise price of \$ per share (representing 125% of the price at which a share of common stock and accompanying common warrant are sold to the public in this offering). The underwriter warrants will be exercisable immediately and for five years from the date of commencement of sales in this offering. The issuance of the underwriter warrants and the shares issuable upon exercise of the underwriter warrants are registered on the registration statement of which this prospectus forms a part. The underwriter warrants shall not be redeemable. Pursuant to FINRA Rule 5110(e), the shares of common stock issuable upon exercise of the underwriter warrants may not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days following the commencement of sales under the registration statement of which this prospectus forms a part, except that they may be assigned, in whole or in part, to any officer or partner of the underwriters. The underwriter warrants may be exercised as to all or a lesser number of shares of common stock for a period of five (5) years after the commencement of sales under the registration statement of which this prospectus forms a part, will provide for cashless exercise in the event an effective registration statement for the shares of common stock issuable upon exercise of the underwriter warrants is not available. The underwriter warrants shall further provide for anti-dilution protection (adjustment in the number and price of such warrants and the shares issuable upon exercise of such warrants) resulting from corporate events (which would include dividends, reorganizations, mergers, etc.) when the public stockholders have been proportionally affected and otherwise in compliance with FINRA Rule 5110(f)(2)(G)(vi).

#### Lock-Up Agreements

We have agreed with the underwriters that we will not, without the prior written consent of the Representatives, for a period of 90 days after the date of this prospectus: (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any classes of our stocks or any securities convertible into or exercisable or exchangeable for any classes of our stocks, (ii) file or caused to be filed any registration statement with the SEC, relating to the offering of any classes of our stocks or any securities convertible into or exercisable or exchangeable for any classes of our stocks, (iii) complete any offering of debt securities, other than entering into a line of credit with a traditional bank, or (iv) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any classes of our stocks, whether any such transaction described in clause (i), (ii), (iii) or (iv) above is to be settled by delivery of any classes of our stocks or such other securities, in cash or otherwise.

#### Tail Period

Subject to FINRA Rule 5110(g)(5)(B), in the event that this offering is not consummated as contemplated herein, the underwriter will be entitled to receive a cash fee equal to (a) seven percent (7.0%) of the gross proceeds received by us from any financing or capital raising transaction and (b) warrants to purchase common stock equal to three percent (3%) of the number of shares of common stock sold in a subsequent offering, to the extent that such proceeds are provided to us by any investor directly introduced by the underwriters to us during the period beginning on August 28, 2023 and ending on the earlier of the closing of the Offering or the earlier termination of the engagement (the "Engagement Period") and the transaction is consummated at any time during the Engagement Period or within the one-month month period following the Engagement Period, provided that such financing or capital raising transaction is by a party actually introduced to the Company in an offering in which the Company has director knowledge of such party's participation.

#### Discretionary Accounts

The underwriters do not intend to confirm sales of the shares of common stock, the pre-funded warrants and the common warrants offered hereby to any accounts over which they have discretionary authority.

### **Electronic Offer, Sale, and Distribution of Securities**

A prospectus in electronic format may be made available on the websites maintained by the underwriter. The prospectus in electronic format will be identical to the paper version of such prospectus. The underwriter may agree to allocate a number of shares to underwriter and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriter and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us, and should not be relied upon by investors.

### **Listing**

Our common stock is listed on The Nasdaq Capital Market under the symbol "SONN." On October 3, 2023, the last reported sale price of our common stock on The Nasdaq Capital Market was \$2.84 per share. There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for a listing of the pre-funded warrants on any national securities exchange. Without an active trading market, the liquidity of the pre-funded warrants will be limited.

### **Stabilization**

In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate-covering transactions, penalty bids, and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase securities so long as the stabilizing bids do not exceed a specified maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the securities while the offering is in progress.
- Over-allotment transactions involve sales by the underwriter of securities in excess of the number of securities the underwriter is obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriter is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriter may close out any short position by exercising their over-allotment option and/or purchasing securities in the open market.
- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the short position, the underwriter will consider, among other things, the price of securities available for purchase in the open market as compared with the price at which they may purchase securities through exercise of the over-allotment option. If the underwriter sells more securities than could be covered by exercise of the over-allotment option and, therefore, have a naked short position, the position can be closed out only by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that after pricing there could be downward pressure on the price of the securities in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, over-allotment transactions, syndicate covering transactions, and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of our securities. As a result, the price of our securities in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our securities. These transactions may be affected on the Nasdaq Stock Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

### **Passive Market Making**

In connection with this offering, the underwriters and selling group members may engage in passive market making transactions in our securities on the Nasdaq Stock Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, then that bid must then be lowered when specified purchase limits are exceeded.

### **Certain Relationships**

The underwriters and their affiliates have provided, or may in the future, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of our Company. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Except for the services provided in connection with this offering and as described below, the underwriters have not provided us with any investment banking or other financial services during the 180-day period preceding the date of this prospectus.

On June 28, 2023, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell and issue, in (i) a registered direct offering (the "RD Offering"), an aggregate of (a) 166,363 shares of common stock at a purchase price of \$9.90 per share and accompanying warrant (the "Private Warrant"), and (b) 60,909 pre-funded warrants (the "Pre-Funded Warrants") to purchase up to an aggregate of 60,909 shares of common stock (the "Pre-Funded Warrant Shares") at a purchase price of \$9.8978 per Pre-Funded Warrant and accompanying Private Warrant and (ii) in a concurrent private placement (the "Private Placement" and together with the RD Offering, the "June 2023 Offering"), Private Warrants to purchase up to 227,272 shares of common stock. The Private Warrants will be exercisable as of December 30, 2023 at an exercise price of \$14.8478 per share and will expire three and one-half years from the date of issuance. The closing of the issuance and sale of these securities was consummated on June 30, 2023. The gross proceeds from the offering, prior to deducting offering expenses and placement agent fees and expenses payable by us, was approximately \$2.25 million.

Pursuant to a placement agency agreement dated as of June 28, 2023, we engaged Chardan Capital Markets, LLC ("Chardan") to act as our exclusive placement agent in connection with the June 2023 Offering. We paid to Chardan (i) a cash fee equal to 8.0% of the aggregate gross proceeds of the June 2023 Offering, excluding the proceeds, if any, from the exercise of the Private Warrants, which amounted to \$180,000, and (ii) a non-accountable expense allowance of 0.5% of the aggregate gross proceeds of the June 2023 Offering, which amounted to \$11,250, and (iii) reimbursed Chardan for certain expenses and legal fees, which amounted to \$35,000. In addition, we issued to Chardan or its designees, placement agent warrants (the "PA Warrants") to purchase up to 6,818 shares of common stock, which were valued at 0.23%. The PA Warrants will be

exercisable as of December 30, 2023 and have a term of exercise equal to three and a half years from the date of issuance, with an exercise price of \$14.8478 per share.

Pursuant to applicable FINRA rules and, in particular, Rule 5110(e)(1), the PA Warrants may not be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities for a period of 180 days beginning on the date of commencement of sales of this offering; provided, however, the PA Warrants may be transferred to the placement agent's officers, partners, registered persons or affiliates as long as the warrants remain subject to the lock-up restriction above.

## EXECUTIVE COMPENSATION

### Summary Compensation Table

The following table shows the compensation awarded to or earned by each person serving as the Company's principal executive officer during fiscal year 2023, the Company's two most highly compensated executive officers who were serving as executive officers as of September 30, 2023 and up to two additional individuals for whom disclosure would have been provided but for the fact that such individuals were not serving as an executive officer as of September 30, 2023. The persons listed in the following table are referred to herein as the "Named Executive Officers."

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(1)	All Other Compensation (\$)	Total (\$)
Pankaj Mohan, Ph.D.	2023	538,998	309,924	95,724	-	78,074	1,022,720
<i>President and Chief Executive Officer(2)</i>	2022	559,729	218,680	144,061	-	82,923	1,005,393
John Cini, Ph.D.	2023	417,750	146,490	23,931	-	38,240	626,411
<i>Chief Scientific Officer</i>	2022	413,048	113,899	36,015	-	52,014	614,976
Jay Cross	2023	388,725	178,813	15,829	-	35,882	619,250
<i>Chief Financial Officer(3)</i>	2022	403,676	127,649	30,128	-	43,358	604,811

- (1) Represents the aggregate grant date fair value for grants made in 2023 and 2022 computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718. This calculation does not give effect to any estimate of forfeitures related to service-based vesting, but assumes that the executive will perform the requisite service for the award to vest in full.
- (2) Dr. Mohan became the Chairman of Sonnet in June 2018 and the Chief Executive Officer in January 2019, and the Chairman, President and Chief Executive Officer of the Company at the closing of the Merger.
- (3) Mr. Cross became the Chief Financial Officer of Sonnet in May 2019, and the Chief Financial Officer of the Company at the closing of the Merger.

### Narrative Disclosure to Summary Compensation Table

#### Employment Agreements

The material terms of each named executive officer's employment agreement or arrangement are described below.

Sonnet entered into an employment agreement with Dr. Mohan on December 31, 2018, as amended (the "Mohan Agreement"), setting forth the terms of his employment as Chief Executive Officer, which agreement was assumed by the Company at the closing of the Merger. Pursuant to the employment agreement, Dr. Mohan is entitled to, among other things, (i) an annual gross base salary of \$490,000, (ii) eligibility for a bonus equal to 5.4% of gross revenue received by the Company from a strategic transaction and (iii) for any year in which the bonus in the previous clause amounts to less than 50% of the base salary, an additional performance-based cash bonus to bring the aggregate cash bonus for such year to up to 50% of the base salary, as determined by the Board. The employment agreement shall terminate in accordance with its terms. Pursuant to Dr. Mohan's employment agreement, if he is terminated without "Cause" or for "Good Reason" within 2 months prior to or within 12 months following a "Change in Control", he is entitled to (i) his base salary for 18 months, (ii) a bonus equal to his performance bonus for the year in which the termination occurs, divided by 12, and then multiplied by 18, and (iii) if he timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 18 months following the termination date, (b) the date he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date he becomes ineligible for COBRA continuation coverage. If Dr. Mohan is terminated without "Cause" or for "Good Reason" not coincident with a "Change in Control", he is entitled to (i) his base salary for 18 months, (ii) any performance bonus for the performance year in which his termination occurs, and (iii) if he timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 18 months following the termination date, (b) the date he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date he becomes ineligible for COBRA continuation coverage.

Sonnet entered into an employment agreement with Dr. Cini on January 10, 2020, as amended (the "Cini Agreement"), setting forth the terms of his employment as Chief Scientific Officer, which agreement was assumed by the Company at the closing of the Merger. Pursuant to the employment agreement, Dr. Cini is entitled to, among other things, (i) an annual gross base salary of \$370,000, (ii) eligibility for a bonus equal to 1.1% of gross revenue received by the Company from a strategic transaction and (iii) for any year in which the bonus in the previous clause amounts to less than 35% of the base salary, an additional performance-based cash bonus to bring the aggregate cash bonus for such year to up to 35% of the base salary, as determined by the Board. The employment agreement shall terminate in accordance with its terms. Pursuant to Dr. Cini's employment agreement, if he is terminated without "Cause" or for "Good Reason" within 2 months prior to or within 12 months following a "Change in Control", he is entitled to (i) his base salary for 12 months and (ii) if he timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 18 months following the termination date, (b) the date he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date he becomes ineligible for COBRA continuation coverage. If Dr. Cini is terminated without "Cause" or for "Good Reason" not coincident with a "Change in Control", he is entitled to (i) his base salary for 9 months and (ii) if he timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 12 months following the termination date, (b) the date he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date he becomes ineligible for COBRA continuation coverage.

Sonnet entered into an employment agreement with Mr. Cross on January 10, 2020 (the "Cross Agreement"), setting forth the terms of his employment as Chief Financial Officer, which agreement was assumed by the Company at the closing of the Merger. Pursuant to the employment agreement, Mr. Cross is entitled to, among other things, (i) an annual gross base salary of \$365,000 and (ii) eligibility for a performance-based cash bonus of up to 40% of the base salary, as determined by the Board. The employment agreement shall terminate in accordance with its terms. Pursuant to Mr. Cross's employment agreement, if he is terminated without "Cause" or for "Good Reason" within 2 months prior to or within 12 months following a "Change in Control", he is entitled to (i) his base salary for 12 months, (ii) any performance bonus for the performance year in which his termination occurs, and (iii) if he timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 18

months following the termination date, (b) the date he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date he becomes ineligible for COBRA continuation coverage. If Mr. Cross is terminated without “Cause” or for “Good Reason” not coincident with a “Change in Control”, he is entitled to (i) his base salary for 9 months, (ii) any performance bonus for the performance year in which his termination occurs, and (iii) if he timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 12 months following the termination date, (b) the date he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date he becomes ineligible for COBRA continuation coverage.

#### Other Agreements

On April 1, 2020, the Company entered into an employment agreement with Ms. Dexter (the “Dexter Agreement”), setting forth the terms of her employment as Chief Technical Officer. Pursuant to the employment agreement, Ms. Dexter is entitled to, among other things, (i) an annual gross base salary of \$310,000 and (ii) eligibility for a performance-based cash bonus of up to 35% of the base salary, as determined by the Board. The employment agreement shall terminate in accordance with its terms. Pursuant to Ms. Dexter’s employment agreement, if she is terminated without “Cause” or for “Good Reason” within 2 months prior to or within 12 months following a “Change in Control”, she is entitled to (i) her base salary for 12 months, (ii) any performance bonus for the performance year in which her termination occurs, and (iii) if she timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 18 months following the termination date, (b) the date she becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date she becomes ineligible for COBRA continuation coverage. If Ms. Dexter is terminated without “Cause” or for “Good Reason” not coincident with a “Change in Control”, she is entitled to (i) his base salary for 9 months, (ii) any performance bonus for the performance year in which her termination occurs, and (iii) if she timely continued coverage under COBRA, payment for COBRA premiums necessary to continue coverage until the earliest of (a) 12 months following the termination date, (b) the date she becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment, or (c) the date she becomes ineligible for COBRA continuation coverage.

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#### Outstanding Equity Awards at Fiscal Year End

The following table sets forth certain information, on an award-by-award basis, concerning unexercised options to purchase common stock, restricted shares of common stock and common stock that has not yet vested for each named executive officer and outstanding as of September 30, 2023.

##### OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END - 2023

Name	Stock Awards	
	Equity incentive plan awards: Number of unearned shares, units or other rights that have not vested (#)	Equity incentive plan awards: Market or payout value of unearned shares, units or other rights that have not vested (\$)
Pankaj Mohan Ph.D.	3,343(1)	9,680
John Cini, Ph.D.	843(1)	2,420
Jay Cross	705(2)	2,025

- (1) Each restricted stock award vests 100% on January 1, 2024.
- (2) Each restricted stock unit (“RSU”) award vests 100% on January 1, 2024

#### Director Compensation

##### Non-Employee Director Compensation Policy

In connection with the Merger, the Board approved a compensation policy for its non-employee directors. Other than reimbursement for reasonable expenses incurred in connection with attending board and committee meetings, this policy provides for the following cash compensation:

- each non-employee director is entitled to receive an annual fee from us of \$35,000;
- the chair of our audit committee will receive an annual fee from us of \$15,000;
- the chair of our compensation committee will receive an annual fee from us of \$10,000;
- the chair of our nominating and corporate governance committee will receive an annual fee from us of \$8,000; and
- each non-chairperson member of the audit committee, the compensation committee and the nominating and corporate governance committee will receive annual fees from us of \$7,500, \$5,000 and \$4,000, respectively.

Each non-employee director that joins the Board receives an initial option grant to purchase 0.080% of the Company’s fully-diluted outstanding Common Stock at the closing of the Merger, which shall vest 33% per year over three years, the first vesting date to occur on the one-year anniversary of the grant date. Each non-employee director also receives an annual option grant to purchase 0.040% of the Company’s fully-diluted outstanding Common Stock at the closing of the Merger, which shall vest 100% upon the earlier of the one-year anniversary of the grant date or the next annual stockholder meeting. Upon a change in control, as defined in the Company’s equity incentive plan, 100% of the shares underlying these options shall become vested and exercisable immediately prior to such change in control.

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Except as set forth in the table below, the non-employee directors did not receive any cash or equity compensation during fiscal year 2023:

DIRECTOR COMPENSATION					
	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)	Option Awards (\$)(1)	All Other Compensation (\$)	Total (\$)
Nailsh Bhatt(2)	54,000	3,845	-	-	57,845



Albert Dyrness(3)	55,500	3,845	-	-	59,345
Donald Griffith (4)	108,173	3,278	-	-	111,451
Raghu Rao(5)	116,500	3,845	-	-	120,345
Lori McNeill	70,000	3,845	-	-	73,845

- (1) Represents the aggregate grant date fair value for grants made in 2023 computed in accordance with FASB ASC Topic 718. This calculation does not give effect to any estimate of forfeitures related to service-based vesting, but assumes that the executive will perform the requisite service for the award to vest in full.
- (2) Mr. Bhatt holds an aggregate of 171 restricted stock units, as of September 30, 2023.
- (3) Mr. Dyrness holds an aggregate of 171 restricted stock units, as of September 30, 2023.
- (4) Mr. Griffith has served as Sonnet's Financial Controller since January 1, 2019, and since the Merger serves as our Controller. The amounts in the table above under "All Other Compensation" represent salary and bonus earned by Mr. Griffith for the fiscal year 2023. See the description of the employment agreement with Mr. Griffith below. Mr. Griffith holds an aggregate of 146 restricted stock units, as of September 30, 2023.
- (5) Mr. Rao holds an aggregate of 171 restricted stock units, as of September 30, 2023.
- (6) Ms. McNeill holds an aggregate of 171 restricted stock units, as of September 30, 2023.

#### *Other Agreement with a Director*

Sonnet entered into an employment agreement with Mr. Griffith on January 1, 2019, setting forth the terms of his employment as Financial Controller. Pursuant to the employment agreement, Mr. Griffith is entitled to, among other things, (i) an annual prorated gross base salary of \$150,000 and (ii) eligibility for a target bonus equal to 25% of gross salary earned. The employment agreement has no specific term and constitutes an at-will employment.

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### INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information into this document, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information.

We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act made subsequent to the date of this prospectus until the termination of the offering of the securities described in this prospectus (other than information in such filings that was "furnished," under applicable SEC rules, rather than "filed"). We incorporate by reference the following documents or information that we have filed with the SEC:

- our Annual Report on Form 10-K for the year ended [September 30, 2022](#), filed with the SEC on December 15, 2022;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended [December 31, 2022](#), [March 31, 2023](#), and [June 30, 2023](#), filed with the SEC on February 13, 2023, May 10, 2023, and August 14, 2023, respectively; and
- our Current Reports on Form 8-K filed with the SEC on [October 4, 2022](#), [October 17, 2022](#), [October 31, 2022](#), [November 2, 2022](#), [November 9, 2022](#), [January 9, 2023](#), [January 19, 2023](#), [February 13, 2023](#), [March 24, 2023](#), [April 18, 2023](#), [June 30, 2023](#), [July 21, 2023](#), [August 22, 2023](#), [August 31, 2023](#), [September 1, 2023](#) and [September 19, 2023](#) (other than any portions thereof deemed furnished and not filed).

Any statement contained in this prospectus or contained in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded to the extent that a statement contained in this prospectus or any subsequently filed supplement to this prospectus, or document deemed to be incorporated by reference into this prospectus, modifies or supersedes such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a copy of these filings at no cost, by writing or telephoning us at the following address:

Sonnet BioTherapeutics Holdings, Inc.  
 Attn: Pankaj Mohan, Ph.D., CEO and Chairman  
 100 Overlook Center, Suite 102  
 Princeton, New Jersey 08540  
 (609) 375-2227

You may also access these filings on our website at [www.sonnetbio.com](http://www.sonnetbio.com). You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide different or additional information on our behalf. An offer of these securities is not being made in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date of those respective documents.

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### WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference into this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any jurisdiction where the offer is not permitted. You should assume that the information contained in this prospectus, or any document incorporated by reference in this prospectus, is accurate only as of the date of those respective documents, regardless of the time of delivery of this prospectus or any sale of our securities.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public from commercial document retrieval services and over the Internet at the SEC's website at <http://www.sec.gov>.

We maintain a website at [www.sonnetbio.com](http://www.sonnetbio.com). You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference into, and is not part of, this prospectus.

## LEGAL MATTERS

The validity of the common stock and certain other legal matters will be passed upon for us by Lowenstein Sandler LLP, New York, New York. Lucosky Brookman LLP, Woodbridge, New Jersey, has acted as counsel to the underwriters in connection with this offering.

## EXPERTS

The consolidated financial statements of Sonnet BioTherapeutics Holdings, Inc. as of September 30, 2022 and 2021 and for the years then ended have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the September 30, 2022 consolidated financial statements contains an explanatory paragraph that states that Sonnet BioTherapeutics Holdings, Inc. has incurred recurring losses and negative cash flows from operations since inception and will require substantial additional financing to continue to fund its research and development activities that raise substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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**3,311,258 Shares of Common Stock**  
**3,311,258 Pre-Funded Warrants to Purchase up to 3,311,258 Shares of Common Stock**  
**6,622,516 Common Warrants to Purchase up to 6,622,516 Shares of Common Stock**  
**99,337 Underwriter Warrants to Purchase up to 99,337 Shares of Common Stock**  
**3,311,258 Shares of Common Stock issuable upon exercise of the Pre-Funded Warrants**  
**6,622,516 Shares of Common Stock issuable upon exercise of the Common Warrants**  
**99,337 Shares of Common Stock issuable upon exercise of the Underwriter Warrants**

## PROSPECTUS

*Joint Book-Running Managers*

**Chardan**

**Ladenburg Thalmann**

The date of this prospectus is \_\_\_\_\_, 2023.

## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale and distribution of the securities being registered. All of the amounts shown are estimates, except for the SEC registration fee and the FINRA filing fee:

	<b>Amount to be paid</b>
SEC registration fee	\$ 4,483
FINRA filing fee	3,631
Legal fees and expenses	275,000
Accounting fees and expenses	115,000
Miscellaneous	11,886
Total expenses	<u>\$ 400,000</u>

#### Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") provides, in general, that a corporation incorporated under the laws of the State of Delaware, as we are, may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than a derivative action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. In the case of a derivative action, a Delaware corporation may indemnify any such person against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification will be made in respect of any claim, issue or matter as to which such person will have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery of the State of Delaware or any other court in which such action was brought determines such person is fairly and reasonably entitled to indemnity for such expenses.

Article X of our Certificate of Incorporation states that to the fullest extent permitted by the DGCL, a director of the corporation shall not be liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

Under Article VI of our Bylaws, any director, officer, employee or agent of the Company who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that such director, officer, employee or agent or a person for whom such director, officer, employee or agent is the legal representative, is or was a director or officer of the Company or, while serving as a director, officer, employee or agent of the Company, is or was serving at the request of the Company as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans (an "Indemnification Covered Person"), against all liability and loss



suffered and expenses (including attorneys' fees, judgments, fines ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred by such person in connection with any such Proceeding.

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We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

**Item 15. Recent Sales of Unregistered Securities.**

In the three years preceding the filing of this registration statement, the Company made sales of the following unregistered securities:

In August 2022, we entered into a securities purchase agreement (the "Preferred SPA") with several accredited investors for the issuance and sale of (i) an aggregate of 22,275 shares of our Series 3 Convertible Preferred Stock, stated value \$100 per share, (ii) 225 shares of our Series 4 Convertible Preferred Stock, stated value \$100 per share, and (iii) Series 3 warrants to purchase up to 12,551 shares of our common stock in a private placement for aggregate gross proceeds of \$2.3 million, with \$0.1 million of issuance costs for net proceeds of \$2.1 million. The shares of Series 3 Convertible Preferred Stock were convertible into an aggregate of 24,852 shares of our common stock and the shares of Series 4 Convertible Preferred Stock were convertible into an aggregate of 251 shares of our common stock, in each case, at a conversion price of \$89.628 per share. The Series 3 warrants have an exercise price of \$89.628 per share, are exercisable commencing six months after issuance, and will expire five years from the issuance date. In September 2022, all shares of preferred stock issued in connection with the Preferred SPA were converted into shares of common stock.

Pursuant to a Securities Purchase Agreement (the "Securities Purchase Agreement") dated February 7, 2020, by and among the Company, Sonnet BioTherapeutics, Inc. ("Sonnet Sub") and certain investors, for an aggregate purchase price of approximately \$19.0 million (comprised of (I) a \$4 million credit from Sonnet Sub and the Company to Chardan Capital Markets, LLC ("Chardan"), in lieu of certain transaction fees otherwise owed to Chardan, and (II) \$15 million in cash from the other Investors (the "Purchase Price"), (i) Sonnet Sub issued and sold to the investors shares of Sonnet Sub's common stock (the "Initial Shares") which converted in the merger among the Company and Sonnet Sub on April 1, 2020 into an aggregate of approximately 6,987 shares of the Company's common stock, (ii) the Company issued to the investors Series A Warrants (the "Series A Warrants") to purchase an aggregate of 10,714 shares of common stock at an exercise price of \$1,662.54 per share and (iii) the Company issued to the investors Series B Warrants (the "Series B Warrants") to purchase an aggregate of 7,297 shares of common stock at an exercise price of \$0.0308 per share. The Company issued the warrants to the investors in reliance on the exemption from registration provided for under Section 4(a)(2) of the Securities Act. The Company relied on this exemption from registration for private placements based in part on the representations made by the investors, including the representations with respect to each investor's status as an "accredited investor," as such term is defined in Rule 501(a) of the Securities Act, and the Investors' investment intent.

On August 3, 2020, the Company entered into Warrant Exercise and Omnibus Amendment Agreements (the "Exercise Agreements") with the holders of the Series A Warrants and Series B Warrants (the "Holders"). Pursuant to the Exercise Agreements, in order to induce the Holders to exercise the Series A Warrants for cash, pursuant to the terms of the Series A Warrants, the Company agreed to reduce the exercise price of the Series A Warrants from \$1,662.54 to \$982.52 per share. The Holders and the Company agreed that the Holders would exercise all of their Series A Warrants for gross proceeds before expenses of approximately \$10.5 million. In addition, the Exercise Agreements also provide for the issuance to the Holders, Series C Warrants (the "Series C Warrants") to purchase 3,4331 shares of common stock (the "Series C Warrant Shares") for each share of common stock issued upon such exercise of the Series A Warrants pursuant to the Exercise Agreements or an aggregate of 36,783 Series C Warrants. The terms of the Series C Warrants are substantially similar to those of the Series A Warrants, except that the Series C Warrants have an exercise price of \$982.52, do not contain subsequent issuance price protection, were not exercisable until the date that was six months from the date of issuance of each Series C Warrant and will expire on October 16, 2025. The Exercise Agreements provided for the amendment to each Holder's Series B Warrants to (i) remove the provisions providing for the rest of the number of shares of common stock underlying the Series B Warrants and (ii) set the aggregate number of shares of common stock underlying all of the Series B Warrants at 14,715, which results from an increase of 7,418 shares pursuant to the terms of the Exercise Agreements. The Company issued the Series B Warrants, the Series C Warrants and the shares of common stock underlying the Series A Warrants, the Series B Warrants and the Series C Warrants to the Holders in reliance on the exemption from registration provided for under Section 4(a)(2) of the Securities Act. The Company relied on this exemption from registration for private placements based in part on the representations made by the Holders, including the representations with respect to each Holder's status as an "accredited investor," as such term is defined in Rule 501(a) of the Securities Act, and each Holder's investment intent.

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In connection with a registered direct offering of our shares of common stock and pre-funded warrants to purchase shares of common stock, on June 28, 2023, we entered into a securities purchase agreement with certain institutional investors (the "Purchasers"), pursuant to which, among other things, we sold to the Purchasers warrants (the "Private Warrants") to purchase up to 227,272 shares of common stock in a private placement. No separate consideration was paid for the issuance of the Private Warrants. In addition, the Company issued to Chardan or its designees, warrants ("PA Warrants") and together with the Private Warrants, the "Warrants") to purchase up to 6,818 shares of common stock (the "PA Warrant Shares"). The Warrants will be exercisable as of December 30, 2023. The Warrants have a term of exercise equal to five years from the date of the securities purchase agreement and have an exercise price equal to \$14.8478 per share.

The Warrants and the shares of common stock issuable upon exercise of the Warrants were offered pursuant to an exemption from the registration requirement of the Securities Act provided in Section 4(a)(2) of the Securities Act and/or Rule 506 promulgated under Regulation D of the Securities Act.

**Item 16. Exhibits.**

The list of exhibits following the signature page of this registration statement is incorporated by reference herein.

**Item 17. Undertakings.**

(1) The undersigned registrant hereby undertakes:

- (a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(b) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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(d) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant hereby undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(2) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) The undersigned registrant hereby undertakes that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance on Rule 430A and contained in a form of prospectus filed by the undersigned registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(b) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(4) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Princeton, State of New Jersey, on October 4, 2023.

**SONNET BIOTHERAPEUTICS HOLDINGS, INC.**

By: /s/ Pankaj Mohan

Pankaj Mohan  
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons on October 4, 2023 in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>
<u>/s/ Pankaj Mohan</u> Pankaj Mohan	Chief Executive Officer and Chairman (Principal Executive Officer)
<u>*</u> Jay Cross	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>*</u> Nailesh Bhatt	Director
<u>*</u> Albert Dyrness	Director
<u>*</u> Donald Griffith	Director
<u>*</u>	Director

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Raghu Rao

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Lori McNeill

Director

\*By: /s/ Pankaj Mohan, Attorney-in-Fact

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### EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
1.1 *	<a href="#"><u>Form of Underwriting Agreement</u></a>
2.1#	<a href="#"><u>Agreement and Plan of Merger, dated October 10, 2019, by and among the Company, Sonnet Sub, and Merger Sub (filed as Exhibit 2.1 to the Company's Current Report on Form 8-K as filed on October 11, 2019, and incorporated herein by reference).</u></a>
2.2	<a href="#"><u>Amendment No. 1 to Agreement and Plan of Merger, dated February 7, 2020, by and among the Company, Sonnet Sub and Merger Sub (filed as Exhibit 2.1 to the Company's Current Report on Form 8-K as filed on February 7, 2020, and incorporated herein by reference).</u></a>
2.3#	<a href="#"><u>Share Exchange Agreement, between Sonnet BioTherapeutics, Inc. and Relief Therapeutics Holding SA, dated August 9, 2019 (incorporated by reference to Exhibit 2.10 to the Company's Registration Statement on Form S-4 filed with the SEC on November 27, 2019).</u></a>
3.1	<a href="#"><u>Certificate of Incorporation, as amended, of Sonnet BioTherapeutics Holdings, Inc. (incorporated by reference to Exhibit 3.1 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2020).</u></a>
3.2	<a href="#"><u>Amended and Restated Bylaws of Sonnet BioTherapeutics Holdings, Inc. (incorporated by reference to Exhibit 3.3 to our Current Report on Form 8-K, filed with the SEC on August 15, 2022).</u></a>
4.1	<a href="#"><u>Form of Common Stock Certificate (Incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-1 (Registration No. 333-178307), filed with the SEC on December 2, 2011).</u></a>
4.2	<a href="#"><u>Form of Warrant dated May 4, 2017 (incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K, filed with the SEC on May 5, 2017).</u></a>
4.3	<a href="#"><u>Spin-Off Entity Warrant, dated April 1, 2020 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on April 3, 2020).</u></a>
4.4	<a href="#"><u>Form of Sonnet BioTherapeutics, Inc. Converted Warrant (incorporated by reference to Exhibit 4.2 to the Company's Quarterly Report on Form 10-Q filed with the SEC on August 14, 2020).</u></a>
4.5	<a href="#"><u>Form of Series A/B Warrants (incorporated by reference to Exhibit 4.16 to the Company's Registration Statement on Form S-4/A filed with the SEC on February 7, 2020).</u></a>
4.6	<a href="#"><u>Form of Series C Warrant (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed with the SEC on August 4, 2020).</u></a>
4.7	<a href="#"><u>Registration Rights Agreement, dated February 7, 2020, by and between the Company and certain investors named therein (incorporated by reference to Exhibit 4.17 to the Company's Registration Statement on Form S-4/A filed with the SEC on February 7, 2020).</u></a>
4.8	<a href="#"><u>Form of Pre-Funded Warrant (Incorporated by reference to Exhibit 4.8 to our Registration Statement on Form S-1 (Registration No. 333-269307), filed with the SEC on February 6, 2023).</u></a>
4.9	<a href="#"><u>Form of Underwriter Warrant (Incorporated by reference to Exhibit 4.9 to our Registration Statement on Form S-1 (Registration No. 333-269307), filed with the SEC on February 6, 2023).</u></a>
4.10	<a href="#"><u>Form of Common Warrant (Incorporated by reference to Exhibit 4.10 to our Registration Statement on Form S-1 (Registration No. 333-269307), filed with the SEC on February 6, 2023).</u></a>
4.11	<a href="#"><u>Form of Pre-Funded Warrant dated June 30, 2023 (incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K, filed with the SEC on June 30, 2023).</u></a>
4.12	<a href="#"><u>Form of Warrant dated June 30, 2023 (incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K, filed with the SEC on June 30, 2023).</u></a>

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4.13	<a href="#"><u>Form of Placement Agent Warrant dated June 30, 2023 (incorporated by reference to Exhibit 4.3 to Current Report on Form 8-K, filed with the SEC on June 30, 2023).</u></a>
4.14 **	<a href="#"><u>Form of Pre-Funded Warrant.</u></a>
4.15 **	<a href="#"><u>Form of Underwriter Warrant.</u></a>
4.16 **	<a href="#"><u>Form of Common Warrant.</u></a>
5.1 *	<a href="#"><u>Opinion of Lowenstein Sandler LLP.</u></a>
10.1	<a href="#"><u>Common Stock Purchase Agreement, between GEM Global Yield Fund LLC SCS and Sonnet BioTherapeutics, Inc., dated August 6, 2019 (incorporated by reference to Exhibit 10.54 to the Company's Registration Statement on Form S-4 filed with the SEC on November 27, 2019).</u></a>
10.2	<a href="#"><u>Amendment to Common Stock Purchase Agreement, between GEM Global Yield Fund LLC SCS and Sonnet BioTherapeutics, Inc., dated September 25, 2019 (incorporated by reference to Exhibit 10.55 to the Company's Registration Statement on Form S-4 filed with the SEC on November 27, 2019).</u></a>

- 10.3 [Side Letter and Amendment No. 2 to Common Stock Purchase Agreement, between GEM Global Yield Fund LLC SCS, Sonnet BioTherapeutics, Inc. and Chanticleer Holdings, Inc., dated February 7, 2020 \(incorporated by reference to Exhibit 10.60 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#)
- 10.4 [Employment Agreement, between Pankaj Mohan and Sonnet BioTherapeutics, Inc., dated December 31, 2018 \(incorporated by reference to Exhibit 10.56 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#) †
- 10.5 [Employment Agreement, between John Cini and Sonnet BioTherapeutics, Inc., dated January 10, 2020 \(incorporated by reference to Exhibit 10.58 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#) †
- 10.6 [Employment Agreement, between Jay Cross and Sonnet BioTherapeutics, Inc., dated January 10, 2020 \(incorporated by reference to Exhibit 10.57 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#) †
- 10.7 [Employment Agreement, between Susan Dexter and the Company, dated April 1, 2020 \(incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K filed with the SEC on April 3, 2020\).](#) †
- 10.8 [Offer Letter, between Donald Griffith and Sonnet BioTherapeutics, Inc., dated January 1, 2019 \(incorporated by reference to Exhibit 10.59 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#) †
- 10.9 [Sonnet BioTherapeutics Holdings, Inc. 2020 Omnibus Equity Incentive Plan \(incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-8 filed with the SEC on May 20, 2020\).](#) †
- 10.10 [Form of Restricted Stock Unit Award \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K \(file No. 001-35570\), filed with the SEC on July 9, 2020\).](#) †
- 10.11\*\*\* [License Agreement, between Ares Trading SA and Relief Therapeutics SA, dated August 28, 2015 \(incorporated by reference to Exhibit 10.51 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#)
- 10.12\*\*\* [Discovery Collaboration Agreement, between XOMA \(US\) LLC and Oncobiologics, Inc., dated July 23, 2012 \(incorporated by reference to Exhibit 10.52 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#)
- 10.13\*\*\* [Amendment of Discovery Collaboration Agreement, between XOMA \(US\) LLC and Sonnet BioTherapeutics, Inc., dated May 7, 2019 \(incorporated by reference to Exhibit 10.53 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#)

- 10.14 [Securities Purchase Agreement, dated as of February 7, 2020, by and among Chanticleer Holdings, Inc., Sonnet BioTherapeutics, Inc. and the investors party thereto \(incorporated by reference to Exhibit 10.64 to the Company's Registration Statement on Form S-4 filed with the SEC on February 7, 2020\).](#)
- 10.15 [Form of Warrant Exercise and Omnibus Amendment Agreement, dated as of August 3, 2020, by and between Sonnet BioTherapeutics Holdings, Inc. and the Holders \(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K \(File No. 001-35570\), filed with the SEC on August 4, 2020\).](#)
- 10.16 [Assignment and Assumption Employment Agreements by Sonnet BioTherapeutics Holdings, Inc., effective April 1, 2020 \(incorporated by reference to Exhibit 10.16 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2020\).](#)
- 10.17 [Amendment No. 1 to Executive Employment Agreement, between Pankaj Mohan and the Company, dated November 23, 2020 \(incorporated by reference to Exhibit 10.17 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2020\).](#)
- 10.18 [Amendment No. 1 to Executive Employment Agreement, between John Cini and the Company, dated November 23, 2020 \(incorporated by reference to Exhibit 10.18 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2020\).](#)
- 10.19 [Form of Indemnification Agreement \(incorporated by reference to Exhibit 10.19 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2020\).](#)
- 10.20 [At-The-Market Sales Agreement, dated February 5, 2020, between the Company and BTIG \(incorporated by reference to Exhibit 1.1 to our Current Report on Form 8-K \(File No. 001-35570\), filed with the SEC on February 5, 2021\).](#)
- 10.21 [License Agreement, dated May 2, 2021, between Sonnet BioTherapeutics, Inc. and New Life Therapeutics PTE, LTD \(incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q, filed with the SEC on May 17, 2021\).](#)
- 10.22 [First Amendment to License Agreement, dated June 11, 2021, between Sonnet BioTherapeutics, Inc. and New Life Therapeutics PTE, LTD \(incorporated by reference to Exhibit 10.22 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2021\).](#)
- 10.23 [Second Amendment to License Agreement, dated July 7, 2021, among Sonnet Biotherapeutics CH SA, Sonnet BioTherapeutics, Inc. and New Life Therapeutics PTE, Ltd. \(incorporated by reference to Exhibit 10.23 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2021\).](#)
- 10.24 [Amendment to License Agreement and Settlement, dated November 1, 2021, between ARES TRADING SA and Sonnet BioTherapeutics CH SA \(incorporated by reference to Exhibit 10.24 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2021\).](#)
- 10.25 [At-The-Market Sales Agreement, dated August 15, 2022, between the Company and BTIG \(incorporated by reference to Exhibit 1.1 to our Current Report on Form 8-K, filed with the SEC on August 15, 2022\).](#)
- 21.1 [Subsidiaries of the Company \(incorporated by reference to Exhibit 21.1 to our Annual Report on Form 10-K, filed with the SEC on December 17, 2020\).](#)
- 23.1 \* [Consent of KPMG LLP](#)
- 23.2 \* [Consent of Lowenstein Sandler LLP \(included as part of Exhibit 5.1\).](#)
- 24.1\*\* [Power of attorney \(included in the signature page to the Company's registration statement on Form S-1 filed with the Commission on September 19, 2023\)](#)
- 107\* [Filing Fee Table](#)

- \* Filed herewith.
- \*\* Previously filed.
- \*\*\* Filed herewith; portions of the exhibit have been omitted pursuant to Item 601(b)(10) of Regulation S-K. A copy of any omitted portions will be furnished to the Securities and Exchange Commission upon request.
- # The schedules and exhibits to this agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the Securities and Exchange Commission upon request.

## SONNET BIOTHERAPEUTICS HOLDINGS, INC.

UNDERWRITING AGREEMENT

October [·], 2023

CHARDAN CAPITAL MARKETS, LLC  
17 State Street, Suite 2100  
New York, NY 10004

LADENBURG THALMANN & CO. INC.  
640 5<sup>th</sup> Avenue, 4<sup>th</sup> Floor  
New York, NY 10019

As Representatives of the several Underwriters (as defined herein)

Ladies and Gentlemen:

Sonnet BioTherapeutics Holdings, Inc., a Delaware corporation (the “Company”), proposes, subject to the terms and conditions stated herein, to issue and sell to several underwriters named on Schedule I hereto (each, an “Underwriter” and collectively, the “Underwriters”) for which Chardan Capital Markets, LLC and Ladenburg Thalmann & Co. Inc. are acting as representatives (each a “Representative” and together, the “Representatives”) of the several Underwriters an aggregate of (i) [·] authorized but unissued shares (the “Firm Shares” or “Shares”) of common stock, par value \$0.0001 per share, of the Company (the “Common Stock”), (ii) pre-funded warrants (the “Pre-Funded Warrants”) to purchase shares up to an aggregate of [·] shares of Common Stock at an exercise price of \$0.0001 per share (the “Pre-Funded Warrant Shares”), and (iii) warrants (the “Firm Warrants” or “Warrants”) to purchase up to an aggregate of [·] shares of Common Stock (the “Firm Warrant Shares” or “Warrant Shares”). The Shares, the Underwriter Warrants (as defined below), the Underwriter Warrant Shares (as defined below), the Pre-Funded Warrants, the Pre-Funded Warrant Shares, the Firm Warrants and the Firm Warrant Shares are collectively referred to as the “Securities”. The offering of the Securities pursuant hereto is referred to as the “Offering.”

The Shares and/or Pre-Funded Warrants and Warrants shall be issued separately and shall be immediately separable and transferable upon issuance. The terms of the Pre-Funded Warrants are set forth in the form of Pre-Funded Warrant attached hereto as Exhibit A. The terms of the Warrants are set forth in the form of Warrant attached hereto as Exhibit B.

The Company and the Underwriters hereby confirm their agreement as follows:

**1. Registration Statement and Prospectus.** The Company has prepared and filed with the Securities and Exchange Commission (the “Commission”) a registration statement on Form S-1 (File No. 333-274581), including the related preliminary prospectus or prospectuses, covering the registration of the sale of the Securities under the Securities Act of 1933, as amended (the “Securities Act”), and the rules and regulations of the Commission thereunder (the “Rules and Regulations”). Promptly after execution and delivery of this Underwriting Agreement (this “Agreement”), the Company will prepare and file a prospectus in accordance with the provisions of Rule 430A (“Rule 430A”) of the Rules and Regulations and Rule 424(b) (“Rule 424(b)”) of the Rules and Regulations. The information included in such prospectus that was omitted from such registration statement at the time it became effective but that is deemed to be part of such registration statement at the time it became effective pursuant to Rule 430A(b) is herein called the “Rule 430A Information”. Such registration statement, including the documents and information incorporated by reference therein, the amendments thereto, the exhibits thereto and any schedules thereto, at the time it became effective, and including the Rule 430A Information, is herein called the “Registration Statement”. Any registration statement filed pursuant to Rule 462(b) of the Rules and Regulations is herein called the “Rule 462(b) Registration Statement” and, after such filing, the term “Registration Statement” shall include the Rule 462(b) Registration Statement. Each prospectus used prior to the date and time that the Registration Statement is declared effective by the Commission (such time, the “Effective Time”), and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement is herein called a “preliminary prospectus”. The final prospectus relating to the Securities that is first filed pursuant to Rule 424(b), in the form first furnished to the Underwriters for use in connection with the offering of the Securities, is herein called the “Prospectus”. For purposes of this Agreement, all references to the Registration Statement, any preliminary prospectus, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval system (“EDGAR”).

All references in this Agreement to financial statements and schedules and other information which is “described,” “contained,” “included” or “stated” in the Registration Statement or the Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements, pro forma financial information and schedules and other information which is incorporated by reference in or otherwise deemed by the Rules and Regulations to be a part of or included in the Registration Statement or the Prospectus, as the case may be; and all references in this Agreement to amendments or supplements to the Registration Statement or the Prospectus shall be deemed to mean and include the subsequent filing of any document under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), that is deemed to be incorporated therein by reference or otherwise deemed by the Rules and Regulations to be a part thereof.

**2. Representations and Warranties of the Company Regarding the Offering.**

(a) The Company represents and warrants to, and agrees with, the Underwriters, as of the date hereof and as of the Closing Date (as defined in Section 4(c) below) as follows:

(i) **No Material Misstatements or Omissions.** At the Effective Time, at the date hereof and, at the Closing Date, the Registration Statement and any post-effective amendment thereto, at the time of filing thereof, conformed or will conform in all material respects with the requirements of the Securities Act and the Rules and Regulations and did 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. The Time of Sale Disclosure Package (as defined below), as of \_\_\_\_\_ (Eastern time) on the date hereof (the “Applicable Time”), on the Closing Date and the Prospectus, as amended or supplemented, as of its date, at the time of filing pursuant to Rule 424(b) under the Securities Act, at the Closing Date, when considered together with the Time of Sale Disclosure Package, did not or 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, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences shall not apply to statements in or omissions from the Registration Statement, the Time of Sale Disclosure Package, or any Prospectus in reliance upon, and in conformity with, the written information furnished by the Representatives on behalf of the Underwriters, which the Company acknowledges is limited to the information contained in the table following the first paragraph and the third paragraph under the caption “Underwriting” in each of the preliminary prospectus and the Prospectus related to the compensation of the Underwriters and the stabilization activities of the Underwriters (collectively, the “Underwriters’ Information”). No order preventing or suspending the effectiveness or use of the Registration Statement or any Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission.

(ii) **Marketing Materials.** The Company has not distributed any prospectus or other offering material in connection with the offering and sale of the Securities other than the Time of Sale Disclosure Package and the roadshow or investor presentations delivered to and approved by the Underwriters for use in connection with the marketing of the offering of the Securities (the “Marketing Materials”).

(iii) **Accurate Disclosure.** (A) The Company has provided a copy to the Underwriters of each Issuer Free Writing Prospectus (as defined below) used in the sale of the Securities, if any. The Company has filed all Issuer Free Writing Prospectuses required to be so filed with the Commission, and no order preventing or suspending the effectiveness or use of any Issuer Free Writing Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission. When taken together with the rest of the Time of Sale Disclosure Package or the Prospectus, no Issuer Free Writing Prospectus, as of the Closing Date, does or will include (1) any untrue statement of a material fact or omission to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or (2) information that conflicts with the information contained in the Registration Statement or the Prospectus. The representations and warranties set forth in the immediately preceding sentence shall not apply to statements in or omissions from the Time of Sale Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus in reliance upon, and in conformity with, the Underwriters' Information.

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(B) At the time of filing of the Registration Statement and at the date hereof the Company was not and is not an "ineligible issuer," as defined in Rule 405 under the Securities Act or an "excluded issuer" as defined in Rule 164 under the Securities Act.

Each Issuer Free Writing Prospectus listed on Schedule II hereto satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period (as defined below), all other conditions as may be applicable to its use as set forth in Rules 164 and 433 under the Securities Act, including any legend, record-keeping or other requirements.

As used in this paragraph and elsewhere in this Agreement:

A. "Time of Sale Disclosure Package" means the most recent preliminary prospectus that is distributed to investors prior to the time of effectiveness, each Issuer Free Writing Prospectus, and the description of the transaction provided by the Underwriters included on Schedule II hereto.

B. "Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, relating to the Securities that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) or (d)(8) under the Securities Act, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) under the Securities Act. For the avoidance of doubt, the term "Issuer Free Writing Prospectus" shall not include any "free writing prospectus" (as defined in Rule 405 under the Securities Act) that was prepared by any Underwriter or provided to any person by any Underwriter without the knowledge and consent of the Company.

(iv) **Financial Statements.** The financial statements included or incorporated by reference in the Registration Statement, Time of Sale Disclosure Package and the Prospectus, together with the related notes and schedules, present fairly the consolidated financial position of the Company as of the dates indicated and the consolidated results of operations and cash flows of the Company for the periods specified and have been prepared in compliance with the requirements of the Securities Act and Exchange Act and in conformity with United States generally accepted accounting principles ("**GAAP**") applied on a consistent basis during the periods involved. The selected financial data and the summary financial information included in the Registration Statement and the Prospectus present fairly the information shown therein and have been compiled on a basis consistent with that of the financial statements included or incorporated by reference in the Registration Statement and the Prospectus, as of and at the dates indicated. Any pro forma financial statements or data included or incorporated by reference in the Registration Statement, Time of Sale Disclosure Package and the Prospectus comply with the requirements of Regulation S-X of the Securities Act, including, without limitation, Article 11 thereof, and the assumptions used in the preparation of such pro forma financial statements and data are reasonable, the pro forma adjustments used therein are appropriate to give effect to the circumstances referred to therein and the pro forma adjustments have been properly applied to the historical amounts in the compilation of those statements and data. The other financial data set forth or incorporated by reference in the Registration Statement, Time of Sale Disclosure Package and the Prospectus is accurately presented and prepared on a basis consistent with the financial statements and books and records of the Company. None of the Company nor any Subsidiary (as defined in Section 3(a)(iii) hereof) do not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations or any "variable interest entities" as that term is used in Accounting Standards Codification Paragraph 810-10-25-20), not disclosed in the Registration Statement, Time of Sale Disclosure Package and the Prospectus. All disclosures contained in the Registration Statement, Time of Sale Disclosure Package or the Prospectus, including the documents incorporated therein by reference, that contain "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission) comply, in all material respects, with Regulation G under the Exchange Act and Item 10 of Regulation S-K under the Securities Act, to the extent applicable.

(v) **Independent Accountants.** KPMG LLP, whose report on the consolidated financial statements of the Company and the Subsidiaries is incorporated by reference in the Registration Statement, Time of Sale Disclosure Package and the Prospectus, is an independent registered public accounting firm with respect to the Company as required by the Securities Act, the Exchange Act and the Public Company Accounting Oversight Board. KPMG LLP has not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

(vi) **Smaller Reporting Company.** As of the time of filing of the Registration Statement, the Company was a "smaller reporting company," as defined in Rule 12b-2 promulgated by the Commission under the Exchange Act.

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(vii) **Statistical and Marketing-Related Data.** The statistical and market-related data included in each of the Registration Statement, the Time of Sale Disclosure Package, the Prospectus or the Marketing Materials, are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources. To the extent required, the Company has obtained the written consent to the use of such data from such sources, other than such consents the failure of which to obtain is not reasonably likely to result in a Material Adverse Effect.

(viii) [Reserved].

(ix) **Trading Market.** The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is approved for listing on The Nasdaq Capital Market ("Nasdaq"). As of the Closing Date, the Shares, the Warrant Shares and the Pre-Funded Warrant Shares will have been duly authorized for listing on Nasdaq.

(x) **Absence of Manipulation.** Neither the Company, nor any of its Subsidiaries, nor any of its or their respective directors, officers or, to the knowledge of the Company, controlling persons has taken, directly or indirectly, any action designed to stabilize or manipulate, or which has constituted or might reasonably be expected to cause or result in, the stabilization or manipulation of, the price of any security of the Company to facilitate the sale or resale of the Securities.

(xi) **Lock-Up Agreements.** Schedule III hereto contains a complete and accurate list of the Company's officers and directors and each beneficial owner of the Company's outstanding shares of Common Stock (or securities convertible or exercisable into shares of Common Stock) that the Company has caused to deliver to the Representatives an executed Lock-Up Agreement (collectively, the "Lock-Up Parties"), in the form attached hereto as Exhibit C (the "Lock-Up Agreement"), prior to the execution of this Agreement.

(xii) **Disclosure of Agreements.** The agreements and documents described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the Rules and Regulations to be described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company or any of

its subsidiaries is a party or by which it is or may be bound or affected and that is referred to in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus has been duly authorized and validly executed by the Company or its subsidiaries and is in full force and effect in all material respects and is enforceable against the Company or its subsidiaries and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus or as is not reasonably likely to result in a Material Adverse Effect, none of such agreements or instruments has been assigned by the Company or its subsidiaries, and neither the Company, its subsidiaries nor, to the Company's knowledge, any other party is in default thereunder and, to the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company's knowledge, performance by the Company or its subsidiaries of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental authority, agency or court, domestic or foreign, having jurisdiction over the Company or its subsidiaries or any of its assets or businesses, including, without limitation, those relating to Environmental Laws (as defined below).

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(xiii) **Testing-the-Waters.** The Company has not (a) engaged in any Testing-the-Waters Communication (as defined below) other than with the consent of the Representatives with entities that are "qualified institutional buyers" within the meaning of Rule 144A under the Securities Act or institutions that are "accredited investors" within the meaning of Rule 501 under the Securities Act and (b) authorized anyone to engage in Testing-the-Waters Communications other than its officers and the Representatives and individuals engaged by the Representatives. The Company has not distributed any written Testing-the-Waters Communications. "Testing-the-Waters Communication" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act. Each Written Testing-the-Waters Communications did not, as of the Applicable Time, and at all times through the completion of the public offer and sale of the Securities will not, include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus. Each Written Testing-the-Waters Communication did not, as of the Applicable Time, when taken together with the Time of Sale Disclosure Package, contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to the Underwriters' Information. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule IV hereto.

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

(xv) **Integration.** 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 the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

(xxvi) **Transactions Affecting Disclosure to FINRA.**

- (a) **Finder's Fees.** Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there are no claims, payments, arrangements, agreements or understandings relating to the payment of a finder's, consulting or origination fee by the Company or, to the Company's knowledge, by any Insider with respect to the sale of the Securities hereunder or any other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by the Financial Industry Regulatory Authority, Inc. ("FINRA").
- (b) **Payments Within Twelve (12) Months.** Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company has not made any direct or indirect payments in connection with the Offering (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 twelve (12) months prior to the Effective Date, other than the payment to the Underwriters as provided hereunder in connection with the Offering.
- (c) **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.
- (d) **FINRA Affiliation.** There is no (i) officer or director of the Company, (ii) beneficial owner of 10% or more of any class of the Company's securities or (iii) 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).
- (e) **Information.** All information provided by the Company in its FINRA questionnaire to counsel to the Underwriters specifically for use by them in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

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(b) Any certificate from any officer of the Company and delivered to the Representatives or to the counsel to the Underwriters shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

**3. Representations and Warranties of the Company Regarding the Company.**

(a) The Company represents and warrants to, and agrees with, the Underwriter, as of the date hereof and as of the Closing Date, as follows:

(i) **Good Standing.** The Company has been duly incorporated and is validly existing as a corporation in good standing under the law of the State of Delaware, with the corporate power and authority to acquire, own, lease and operate its properties, and to lease the same to others, and to conduct its business as described in the Registration Statement and the Prospectus, to execute and deliver this Agreement and to issue and sell the Securities as contemplated herein and therein; and the Company is in compliance in all respects with the laws, orders, rules, regulations and directives issued or administered by such jurisdictions, except where the failure to be in compliance would not, individually or in the aggregate, have a Material Adverse Effect (as defined below).

(ii) **Foreign Qualification of the Company.** The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction where the ownership or leasing of its properties or the conduct of its business requires such qualification, except where the failure to be so qualified and in good standing would not, individually or in the aggregate, either (i) have or reasonably be expected to have a material adverse effect on the business, operations, properties, financial condition, results of operations or prospects of the Company and its Subsidiaries (as defined below), taken as a whole, or (ii) prevent, materially interfere with or materially delay consummation of the transactions contemplated hereby (the effects described in the foregoing clauses (i) and (ii) being herein referred to as a "Material Adverse Effect").



(iii) **Subsidiaries.** Each subsidiary of the Company (each a “Subsidiary” and collectively, the “Subsidiaries”) that is a significant subsidiary, as defined in Rule 1-02(w) of Regulation S-X of the Exchange Act (each a “Significant Subsidiary” and collectively, the “Significant Subsidiaries”), has been duly incorporated or organized and is validly existing as a corporation, limited liability company or limited partnership, as the case may be, in good standing under the law of the jurisdiction of its incorporation or organization, has corporate power and authority to own, lease and operate its properties and conduct its business as described in the Prospectus and is duly qualified as a foreign corporation, limited liability company or limited partnership, as the case may be, to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to so qualify would not have a Material Adverse Effect. All of the issued and outstanding capital stock of, or other ownership interests in, each such Significant Subsidiary has been duly authorized and validly issued, is fully paid and non-assessable and, except for directors’ qualifying shares, is owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity; and attached hereto as Schedule V is an accurate and complete list of the Significant Subsidiaries. At the date of filing with the Commission, the Company did not have any Significant Subsidiary not listed on Exhibit 21.1 to the Company’s most recent Annual Report on Form 10-K which was required to be so listed.

(iv) [Reserved].

(v) **Validity and Binding Effect of Agreements.** The Company has the power and authority to enter into this Agreement and the Lock-Up Agreements and to execute and to issue and sell the Securities as contemplated by this Agreement. The execution, delivery and performance of this Agreement, the Pre-Funded Warrants, the Warrants and the Underwriter Warrants and each Lock-Up Agreement have been duly and validly authorized by the Company, and, when executed and delivered, will constitute the legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms; provided, however, that the enforceability thereof may be limited by bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium, and similar laws relating to or affecting creditors’ rights generally and by general principles of equity (regardless of whether such enforceability is considered a proceeding in equity or at law).

(vi) **Agreements.** There are no contracts, agreements, instruments or other documents that are required to be described in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus or any documents incorporated therein by reference or to be filed as exhibits thereto which have not been so described in all material respects and filed as required by Item 601(b) of Regulation S-K under the Securities Act. The copies of all contracts, agreements, instruments and other documents (including governmental licenses, authorizations, permits, consents and approvals and all amendments or waivers relating to any of the foregoing) that have been furnished to the Underwriters or their counsel are complete and genuine and include all material collateral and supplemental agreements thereto. All contracts and agreements between the Company and third parties expressly referenced in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus are legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors’ rights generally and by general principles of equity.

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(vii) **Absence of Defaults and Conflicts** Neither the Company nor any Subsidiary is (i) in breach or violation of its certificate or articles of incorporation, charter, bylaws, limited liability company agreement, certificate or agreement of limited or general partnership, memorandum and articles of association, or other similar organizational documents, as the case may be, of such entity, (ii) in breach of or in default (or, with the giving of notice or lapse of time or both, would be in default) (“Default”) under any indenture, mortgage, loan or credit agreement, deed of trust, note, contract, franchise, lease or other agreement, obligation, condition, covenant or instrument to which the Company or any Subsidiary is a party or by which it or any of them may be bound or to which any of the property or assets of the Company or any Subsidiary is subject (each, an “Existing Instrument”), or (iii) in violation of any statute, law, rule, regulation, judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or any Subsidiary or any of their properties, as applicable, except, with respect to clauses (ii) and (iii) only, for such breaches, violations or Defaults that would not, individually or in the aggregate, have a Material Adverse Effect. The Company’s execution, delivery and performance of this Agreement and consummation of the transactions contemplated hereby or thereby or by the Registration Statement and the Prospectus (including the issuance and sale of the Securities and the use of the proceeds from the sale of the Securities as described in the Prospectus under the caption “Use of Proceeds”) (i) have been duly authorized by all necessary corporate action, and will not result in any breach or violation of the certificate or articles of incorporation, charter, bylaws, limited liability company agreement, certificate or agreement of limited or general partnership, memorandum and articles of association, or other similar organizational documents, as the case may be, of the Company or any Subsidiary, (ii) will not conflict with or constitute a breach of, or Default or a Debt Repayment Triggering Event (as defined below) under, or result in the creation or imposition of any lien, charge, claim or encumbrance upon any property or assets of the Company or any of its Significant Subsidiaries pursuant to, or require the consent of any other party to, any Existing Instrument, and (iii) will not result in any violation of any statute, law, rule, regulation, judgment, order or decree applicable to the Company or any Subsidiary of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or any Subsidiary any of its or their properties, as applicable, except, with respect to clauses (ii) and (iii) only, for such conflicts, breaches, Defaults, Debt Repayment Triggering Events or violations that would not, individually or in the aggregate, have a Material Adverse Effect. As used herein, a “Debt Repayment Triggering Event” means any event or condition which gives, or with the giving of notice or lapse of time or both would give, the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf), issued by the Company, the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its Significant Subsidiaries.

(viii) **Consents.** No consents, approvals, orders, authorizations or filings are required on the part of the Company in connection with the execution, delivery or performance of this Agreement or the issue and sale of the Securities, except (A) the registration under the Securities Act of the Securities, which has been effected, (B) the necessary filings and approvals from Nasdaq to list the Shares, the Warrant Shares, the Pre-Funded Warrant Shares and the Underwriter Warrant Shares, (C) such consents, approvals, authorizations, registrations or qualifications as may be required under state or foreign securities or “Blue Sky” laws and the rules of FINRA in connection with the purchase of the Shares and/or Pre-Funded Warrants and Warrants and distribution of the Securities by the several Underwriters, (D) such consents and approvals as have been obtained and are in full force and effect, and (E) such consents, approvals, orders, authorizations and filings the failure of which to make or obtain is not reasonably likely to result in a Material Adverse Effect.

(ix) **SEC Reports.** The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act, and has timely filed all annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and all other reports required to be filed by the Company under the Exchange Act (together, the “SEC Reports”) during the twelve (12) months preceding the date hereof.

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(x) **Capitalization.** The Company has an authorized and outstanding capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus (subject, in each case, to the issuance of the Shares and/or Pre-Funded Warrants, Warrants and Underwriter Warrants under this Agreement, the grant of options under existing stock option plans described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus). All of the issued and outstanding shares of capital stock of the Company are duly authorized and validly issued, fully paid and nonassessable, have been issued in compliance with all applicable securities laws and conform in all material respects to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus. All of the issued shares of capital stock of each Subsidiary have been duly and validly authorized and issued, are fully paid and non-assessable and, except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims, except to the extent that such liens, encumbrances, equities or claims would not reasonably be expected to have a Material Adverse Effect. Except for the issuances of options or restricted stock units pursuant to an equity incentive plan, since the respective dates as of which information is provided in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, the Company has not entered into or granted any convertible or exchangeable securities, options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares of the capital stock of the Company. The Shares, the Pre-Funded Warrants, the Warrants and the Underwriter Warrants, when issued and paid for as provided herein, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with

all applicable securities laws, and will be free of pre-emptive, registration or similar rights and will conform in all material respects to the description of the capital stock of the Company contained in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus. The Pre-Funded Warrant Shares and the Warrant Shares, when issued, paid for and delivered upon due exercise of the Pre-Funded Warrants and the Warrants, as applicable, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with all applicable securities laws and will be free of pre-emptive, registration or similar rights. The Underwriter Warrant Shares, when issued, paid for and delivered upon due exercise of the Underwriter Warrants, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with all applicable securities laws and will be free of pre-emptive, registration or similar rights.

(xi) **No Registration Rights.** Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, no holders of any securities of the Company or any options, warrants, rights or other securities exercisable for or convertible or exchangeable into securities of the Company have the right to require the Company to register any such securities of the Company under the Securities Act or to include any such securities in the Registration Statement or any other registration statement to be filed by the Company.

(xii) **No Pre-emptive Rights.** Except as otherwise stated in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus, there are no pre-emptive rights or other rights to subscribe for or to purchase, or any restrictions upon the voting or transfer of, any shares of Common Stock pursuant to the Company's certificate of incorporation, by-laws or any agreement or other 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.

(xiii) **Taxes.** The Company and its Subsidiaries have filed all returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof. The Company and each of its Subsidiaries has paid all taxes (as hereinafter defined) shown as due on such returns that were filed and has paid all taxes imposed on or assessed against the Company, except those that are being contested in good faith or as would not have, individually or in the aggregate, result in a Material Adverse Effect. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. Except as disclosed in writing to the Underwriters, (i) no material issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company. To the Company's knowledge, there are no tax liens against the assets, properties or business of the Company. The term "taxes" means all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind whatever, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

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(xiv) **Material Change.** Since the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, (A) neither the Company nor any of its subsidiaries has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (B) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock; (C) there has not been any change in the capital stock of the Company or any of its subsidiaries (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants, upon the conversion of outstanding shares of preferred stock or other convertible securities or upon the vesting of outstanding restricted stock units; (D) there has not been any material change in the Company's long-term or short-term debt, and (E) there has not been the occurrence of any Material Adverse Effect.

(xv) **Ownership Interest.** Except as otherwise stated in the Registration Statement, in the Time of Sale Disclosure Package, the Preliminary Prospectus and the Prospectus, the Company does not own, directly or indirectly, any capital stock or other ownership interest in any partnership, corporation, business trust, limited liability company, limited liability partnership, joint stock company, trust, unincorporated association, joint venture or other entity.

(xvi) **Absence of Proceedings.** Other than as set forth in the Registration Statement, the Time of Sale Disclosure Package, the Preliminary Prospectus and the Prospectus, there is no pending or, to the knowledge of the Company, threatened action, suit or proceeding to which the Company or any of its subsidiaries is a party or of which any property or assets of the Company or any of its Subsidiaries is the subject before or by any court or governmental agency, authority or body, or any arbitrator or mediator, which, if determined adversely to the Company or its subsidiaries, would individually or in the aggregate, reasonably be likely to result in a Material Adverse Effect. The aggregate of all pending legal or governmental proceedings to which the Company or any Subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, including ordinary routine litigation incidental to the business of the Company, would not, individually or in the aggregate, result in a Material Adverse Effect.

(xvii) **Possession of Licenses and Permits.** Each of the Company and its Significant Subsidiaries has all necessary licenses, authorizations, consents and approvals (including, without limitation, those administered by the United States Food and Drug Administration of the U.S. Department of Health and Human Services (the "FDA") or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) and has made all necessary filings required under any federal, state, local or foreign law, regulation or rule, and has obtained all necessary licenses, certificates, authorizations, orders, permits, consents and approvals from other persons, in order to acquire and own, lease or sublease, lease to others and conduct its respective business as described in the Registration Statement, Time of Sale Disclosure Package or Prospectus, except where the failure to have or obtain such licenses, permits, authorizations, consents and approvals and to make such filings would not, individually or in the aggregate, have a Material Adverse Effect. All of such license, permit, authorization, consent or approval are valid and in full force and effect, except where the invalidity of such license, permit, authorization, consent or approval to be in full force and effect would not have a Material Adverse Effect. Neither the Company nor any of its Significant Subsidiaries is in violation of, or in default under, or has received notice of any proceedings relating to revocation or modification of, any such license, permit, authorization, consent or approval (or has any reason to believe that any such license, permit, authorization, consent or approval will not be renewed in the ordinary course) or any federal, state, local or foreign law, regulation or rule or any decree, order or judgment applicable to the Company or any of its Significant Subsidiaries, except where such violation, default, revocation or modification.

(xviii) **Clinical Studies.** Except set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there is no legal or governmental proceeding to which the Company or any of its Subsidiaries is a party or of which any property or assets of the Company or any of its subsidiaries is the subject, including any proceeding before the FDA or comparable federal, state, local or foreign governmental bodies (it being understood that the interactions between the Company and the FDA and such comparable governmental bodies relating to the testing, clinical development, manufacture and product approval process for its products shall not be deemed proceedings for purposes of this representation), which is required to be described in the Registration Statement or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company or its Subsidiaries, would reasonably be expected to have a Material Adverse Effect; and to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others. The Company is in compliance with all applicable federal, state, local and foreign laws, regulations, orders and decrees governing its business as currently conducted, or any other federal, state or foreign agencies or bodies engaged in the regulation of medical devices, except where noncompliance would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect. All preclinical and clinical studies conducted by or on behalf of the Company and submitted to regulatory authorities to support approval for commercialization of the Company's products have been conducted by the Company, or to the Company's knowledge by third parties, in compliance with all applicable federal, state or foreign laws, rules, orders and regulations, except for such failure or failures to be in compliance as would not reasonably be expected to have, singly or in the aggregate, a Material Adverse Effect.

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(ix) **Property.** Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company and each of its Subsidiaries have good and marketable title to all of the properties and assets reflected as owned in the financial statements referred to in Section 2(iv) above (or elsewhere in the Registration Statement and the Prospectus), in each case free and clear of any security interests, mortgages, liens, encumbrances, equities, claims and other defects, except such as do not materially and adversely affect the value of such property or assets and do not materially interfere with the use made or proposed to be made of such property by the Company or any Subsidiary. The material real property, improvements, equipment and personal property held under lease by the Company or any of its Significant Subsidiaries are held under valid and enforceable leases, with such exceptions as are not material and do not materially interfere with the use made or proposed to be made of such real property, improvements, equipment or personal property by the Company or such Subsidiary. The Company and each of its Subsidiaries have such consents, easements, rights-of-way or licenses from any person (“rights-of-way”) as are necessary to enable the Company and each of its Subsidiaries to conduct its business in the manner described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, and except for such rights-of-way the lack of which would not have, individually or in the aggregate, a Material Adverse Effect.

(xx) **Intellectual Property.** Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company and its Subsidiaries own or possess the right to use, or has a reasonable basis to believe that it can acquire on reasonable terms the right to use, all (i) patents, trademarks, service marks, service mark registrations, Internet domain name registrations, copyrights, licenses, trade secret rights (“Intellectual Property Rights”) and (ii) inventions, software, works of authorships, trademarks, service marks, trade names, databases, formulae, know how, Internet domain names and other intellectual property (including trade secrets and other unpatented and/or unpatentable proprietary confidential information, systems, or procedures) (collectively, “Intellectual Property Assets”) necessary to conduct its businesses as currently conducted and described in the Registration Statement and the Prospectus, and which the failure to own or have such rights would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any of its Subsidiaries has received any opinion from its legal counsel concluding that any activities of their respective businesses infringe, misappropriate, or otherwise violate, valid and enforceable Intellectual Property Rights of any other person, and except as described in the Registration Statement and the Prospectus, have not received written notice of any challenge, which is to their knowledge still pending, by any other person to the rights of the Company and its Subsidiaries with respect to any Intellectual Property Rights or Intellectual Property Assets owned or used by the Company and its Subsidiaries, which if determined adversely against the Company would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, to the knowledge of the Company, the business of the Company and its subsidiaries as now conducted does not give rise to any infringement of, any misappropriation of, or other violation of, any valid and enforceable Intellectual Property Rights of any other person. To the knowledge of the Company, all licenses for the use of the Intellectual Property Rights described in the Registration Statement and the Prospectus are valid, binding upon, and enforceable by or against the parties thereto in accordance to its terms. The Company and its subsidiaries have complied in all material respects with, and are not in breach nor have received any written notice of any asserted or threatened claim of breach of any Intellectual Property license, and the Company has no knowledge of any breach by any other person to any Intellectual Property license. Except as described in the Registration Statement, no claim has been made against the Company nor its Subsidiaries alleging the infringement by the Company or its Subsidiaries of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person, except as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. The Company and its Subsidiaries have taken reasonable steps to protect, maintain and safeguard its Intellectual Property Rights, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated herein will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require any further consent of any other person in respect of, the right of the Company and its Subsidiaries to own, use, or hold for use any of the Intellectual Property Rights as owned, used or held for use in the conduct of the business as currently conducted. The Company and its Subsidiaries have taken reasonable actions to obtain ownership of works of authorship and inventions made by its employees, consultants and contractors during the time they were employed by or under contract with the Company and its Subsidiaries and which relate to the business of the Company, or licenses to use such works of authorship or inventions.

(xxi) **Labor Disputes.** No labor disturbance by or dispute with employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is threatened which would reasonably be expected to result in a Material Adverse Effect. None of the employees of the Company or any of its Subsidiaries is represented by a union and, to the knowledge of the Company, no union organizing activities are taking place. Neither the Company nor any of its Subsidiaries has violated any federal, state or local law or foreign law relating to the discrimination in hiring, promotion or pay of employees, nor any applicable wage or hour laws, or the rules and regulations thereunder, or analogous foreign laws and regulations, which might, individually or in the aggregate, result in a Material Adverse Effect.

(xxii) **ERISA Compliance.** (i) The Company and its Significant Subsidiaries and any “employee benefit plan” (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, “ERISA”)) established or maintained by the Company, its Significant Subsidiaries or their ERISA Affiliates (as defined below) are in compliance in all material respects with ERISA and the Internal Revenue Code of 1986, as amended (the “Code”); (ii) no “reportable event” (as defined under ERISA), other than an event for which the reporting requirement has been waived under regulations issued by the Pension Benefit Guaranty Corporation, has occurred with respect to any pension plan subject to Title IV of ERISA that is established or maintained by the Company, its Significant Subsidiaries or any of their ERISA Affiliates (“Pension Plan”); (iii) no Pension Plan’s benefit liabilities under Section 4001(a)(16) of ERISA exceed the current value of that Pension Plan’s assets, all as determined as of the most recent valuation date for the Pension Plan in accordance with the assumptions used for funding the Pension Plan pursuant to Section 412 of ERISA; (iv) none of the Company, its Significant Subsidiaries or any of their ERISA Affiliates has incurred or reasonably expects to incur any liability under (A) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan,” (B) Sections 4971 or 4975 of the Code, (C) Section 412 of the Code as a result of a failure to satisfy the minimum funding standard, or (D) Section 4980B of the Code with respect to the excise tax imposed thereunder; and (v) each “employee benefit plan” established or maintained by the Company, its Significant Subsidiaries or any of their ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code has received a favorable determination letter from the Internal Revenue Service and nothing has occurred, whether by action or failure to act, which is reasonably likely to cause disqualification of any such employee benefit plan under Section 401(a) of the Code, except in the case of each of clauses (i) through (v), which would not have a Material Adverse Effect. “ERISA Affiliate” means, with respect to the Company or a Significant Subsidiary, any member of any group of organizations described in Section 414(b), (c), (m) or (o) of the Code, of which the Company or such Significant Subsidiary is a member.

(xxiii) **Environmental Matters.** Except as otherwise disclosed in the Registration Statement, the Time of Sale Disclosure Package and Prospectus, neither the Company nor any of its Subsidiaries has been in material violation of, in connection with the ownership, use, maintenance or operation of its properties and assets, any applicable federal, state, municipal, local or foreign laws, rules, regulations, decisions, orders, policies, permits, licenses, certificates or approvals having force of law, domestic or foreign, relating to environmental, health, or safety matters or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, “Environmental Laws”). Without limiting the generality of the foregoing and except as otherwise described in the Registration Statement and Prospectus: (i) the Company and each of its Subsidiaries has occupied its properties and has received, handled, used, stored, treated, shipped and disposed of all pollutants, contaminants, hazardous or toxic materials, controlled or dangerous substances or wastes in compliance with all applicable Environmental Laws to conduct their respective businesses; (ii) neither the Company nor any of its Subsidiaries is aware of any unlawful spills, releases, discharges or disposal of any pollutants, contaminants, hazardous or toxic materials, controlled or dangerous substances or wastes that have occurred or are presently occurring on or from its properties as a result of any construction on or operation and use of its properties, (iii) there are no orders, rulings or directives issued against the Company or any of its Subsidiaries, and there are no orders, rulings or directives pending or, to the knowledge of the Company, threatened against the Company or any of its Subsidiaries under or pursuant to any Environmental Laws requiring any work, repairs, construction or capital expenditures with respect to any properties or assets of the Company or any of its Subsidiaries; and (iv) no notice with respect to any of the matters referred to in this Section 3(xxiii), including any alleged violations by the Company or any of the Subsidiaries with respect thereto has been received by the Company or any of its Subsidiaries, and no writ, injunction, order or judgment is outstanding, and no legal proceeding under or pursuant to any Environmental Laws or relating to the ownership, use, maintenance or operation of the properties and assets of the Company or any of its Subsidiaries is in progress, pending or threatened, which could reasonably be expected to have a Material Adverse Effect, and to the knowledge of the Company, there are no grounds or conditions which exist, on or under any property now or previously owned, operated or leased by the Company or any of its Subsidiaries, on which any such legal proceeding might be commenced with any reasonable likelihood of success or with the passage of time, or the giving of notice or both, would give rise thereto.

(xxiv) **SOX Compliance.** There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any applicable provision of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith (the "Sarbanes-Oxley Act"), including Section 402 related to loans and Sections 302 and 906 related to certifications.

(xxv) **Accounting Controls and Disclosure Controls.** The Company and each of its Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) receipts and expenditures are being made only in accordance with management's general or specific authorization; (iv) access to assets is permitted only in accordance with management's general or specific authorization; and (v) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Registration Statement and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company and its Subsidiaries, considered as one enterprise, have established and currently maintain disclosure controls and procedures that comply with Rule 13a-15 under the Exchange Act, and the Company has determined that such disclosure controls and procedures are effective in compliance with Rule 13a-15 under the Exchange Act.

(xxvi) **Money Laundering Laws.** The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "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 Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(xxvii) **Foreign Corrupt Practices Act.** None of the Company, any Subsidiary or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its Subsidiaries, is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the "FCPA"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA. The Company and the Subsidiaries have conducted their respective businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(xxviii) **OFAC.** None of the Company, any Subsidiary or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or person acting on behalf of the Company or any of its Subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

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(xxix) **Cybersecurity.** With such exceptions as would not, individually or in the aggregate, have a Material Adverse Effect: (A) there has been no security breach or incident, unauthorized access or disclosure, or other compromise of or relating to the Company's or any of its subsidiaries' information technology and computer systems, networks, hardware, software, data and databases (including the data and information of their respective tenants, customers, employees, suppliers, vendors and any third party data maintained, processed or stored by the Company or any of its subsidiaries, and any such data processed or stored by third parties on behalf of the Company or any of its subsidiaries), equipment or technology (collectively, "IT Systems and Data"); (B) neither the Company nor any of its subsidiaries has been notified of, and have no knowledge of any event or condition that would result in, any security breach or incident, unauthorized access or disclosure or other compromise to their IT Systems and Data; and (C) the Company and its subsidiaries have implemented reasonably appropriate controls, policies, procedures and technological safeguards to maintain and protect the integrity, continuous operation, redundancy and security of their IT Systems and Data reasonably consistent with industry standards and practices, or as required by applicable regulatory standards. The Company and its subsidiaries are presently in material compliance with all applicable laws and statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification.

(xxx) **Director Independence.** Each of the independent directors (or independent director nominees, once appointed, if applicable) named in the Registration Statement and Prospectus satisfies the independence standards established by the Exchange and, with respect to members of the Company's audit committee, the enhanced independence standards contained in Rule 10A-3(b)(1) promulgated by the Commission under the Exchange Act.

(xxxi) **Related Party Transactions.** No relationship, direct or indirect, exists between or among the Company or any of its Subsidiaries on the one hand, and the directors, officers, trustees, managers, stockholders, partners, customers or suppliers of the Company or any of the Subsidiaries on the other hand, which would be required by the Securities Act to be disclosed in the Registration Statement and the Prospectus, which is not so disclosed.

(xxxii) **Insurance.** The Company and its Subsidiaries carry or are entitled to the benefits of insurance in such amounts and covering such risks as the Company reasonably deems adequate, and all such insurance is in full force and effect. The Company has no reason to believe that it or any Subsidiary will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Effect. Neither the Company nor any Subsidiary has been denied any material insurance coverage which it has sought or for which it has applied.

(xxxiii) **Transactions Affecting Disclosure to FINRA.** The Company is not required to register as a "broker" or "dealer" in accordance with the provisions of the Exchange Act and does not, directly or indirectly through one or more intermediaries, control or have any other association with (within the meaning of Article I of the By-laws of FINRA) any member firm of FINRA. No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers or stockholders of the Company, on the other hand, which is required by the rules of FINRA to be described in the Registration Statement, and the Prospectus, which is not so described.

(xxxiv) **No Financial Advisor.** Other than the Underwriters, no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the transactions contemplated hereby.

(xxxv) **Investment Company Act.** The Company is not, and, after giving effect to the offering and sale of the Securities and the application of the net proceeds thereof, including the proceeds received upon exercise of the Pre-Funded Warrants, the Warrants and/or the Underwriter Warrants, will not be required to register as an "investment company," as such term is defined in the Investment Company Act of 1940, as amended.

(xxxvi) **Public Filings.** The Registration Statement (and any further documents to be filed with the Commission in connection with the Offering) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, if any, at the time it became effective, complied in all material respects with the Securities Act and the applicable rules and regulations under the Securities Act and did not and, as amended or supplemented, if applicable, 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. The Prospectus complies in all material respects with the Securities Act and the applicable rules and regulations. The Prospectus, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of

the circumstances under which they were made, not misleading. The SEC Reports, when they respectively were filed with the Commission, conformed in all material respects to the requirements of the Securities Act and the Exchange Act, as applicable, and the applicable rules and regulations, and none of such documents, when they respectively were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to the SEC Reports incorporated by reference in the Prospectus), in light of the circumstances under which they were made not misleading; and any further documents so filed and incorporated by reference in the Prospectus when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and the applicable rules and regulations, as applicable, and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. There are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (A) have not been filed as required pursuant to the Securities Act or (B) will not be filed within the requisite time period. There are no contracts or other documents required to be described in the Prospectus, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required.

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(xxxvii) **No Off-Balance Sheet Arrangements.** Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there are no material off-balance sheet arrangements (as defined in Item 303 of Regulation S-K) that have or are reasonably likely to have a material current or future effect on the Company's financial condition, revenues or expenses, changes in financial condition, results of operations, liquidity, capital expenditures or capital resources.

(xxxviii) **Certain Statements.** The statements set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus under the caption "Description of Capital Stock," insofar as they purport to constitute a summary of (A) the terms of the Company's outstanding securities, (B) the terms of the Securities, and (C) the terms of the documents referred to therein, are accurate and fair in all material respects.

(xxxix) **Margin Securities.** The Company owns no "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"), and none of the proceeds of Offering will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the Public Shares to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

(xxxx) **Confidentiality and Non-Competition.** To the Company's knowledge, no director, officer, key employee or consultant of the Company is subject to any confidentiality, non-disclosure, non-competition agreement or non-solicitation agreement with any employer or prior employer that could materially affect his ability to be and act in his respective capacity of the Company or be expected to result in a Material Adverse Change. Each officer, key employee or consultant of the Company has entered into a confidentiality agreement in favor of the Company relating to the protection of the proprietary information and confidential information of the Company.

(xxxxi) **Corporate Records.** The minute books of the Company have been made available to the Underwriters and counsel for the Underwriters, and such books (i) contain minutes of all material meetings and actions of the board of directors (including each board committee) and stockholders of the Company, and (ii) reflect all material transactions referred to in such minutes.

#### **4. Purchase, Sale and Delivery of Securities.**

(a) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, (i) the Company agrees to issue and sell the Firm Shares and/or Pre-Funded Warrants and Firm Warrants to the Underwriters, and the Underwriters, severally and not jointly, agree to purchase the Firm Shares and/or Pre-Funded Warrants and the Firm Warrants as set forth opposite the name of such Underwriter on Schedule I hereto at a price of \$[ ] per one Firm Share and one Firm Warrant and at a price of \$[ ] per one Pre-Funded Warrant and one Firm Warrant.

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(b) Prior to the Closing Date, the Representatives shall provide the Company with a list of investors to which the Underwriters allocated Pre-Funded Warrants and Warrants, as applicable (the "Investor List"). The Investor List shall specify the name, address and number of Pre-Funded Warrants and Warrants to be sold to each such investor. Prior to the Closing Date, the Company shall provide a draft of the Pre-Funded Warrants and Warrants, as applicable, to the Underwriters for review. On the Closing Date, the Company shall deliver the Pre-Funded Warrants and Warrants, by mailing such instruments to each investor in accordance with the Investor List through a U.S. nationally recognized overnight courier service. If the Company, upon the instruction of the Representatives, registers any Pre-Funded Warrant or Warrant in the name of any person or entity to which any Underwriter intends to sell such Pre-Funded Warrant or Warrant, then such Underwriter shall have the right to thereafter, but prior to the Closing Date, request the re-registration of such Pre-Funded Warrant or Warrant (and the Company shall be required to re-register such Pre-Funded Warrant or Warrant) in the name of any other person or entity (it being understood that such re-registration is intended to permit an Underwriter to resell such Pre-Funded Warrant or Warrant in the event that the person or entity to which such Underwriter originally intended to sell such Pre-Funded Warrant or Warrant shall fail to pay the purchase price of such Pre-Funded Warrant).

(c) The Shares and/or Pre-Funded Warrants and Warrants will be delivered by the Company to the Underwriters (or as otherwise provided for in Section 4(b) above) against payment therefor by wire transfer of same day funds payable to the order of the Company at the offices of the Chardan Capital Markets, LLC at 17 State Street, Suite 2100, New York, NY 10004 or such other location as may be mutually acceptable, at 10:00 a.m. Eastern Time, on the second (or if the Shares and/or Pre-Funded Warrants and Warrants are priced, as contemplated by Rule 15c6-1(c) under the Exchange Act, after 4:30 p.m. Eastern time, the third) full business day following the date hereof, or at such other time and date as the Representatives and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act. The time and date of delivery of the Shares and/or Pre-Funded Warrants and Warrants is referred to herein as the "Closing Date". Delivery of the Shares shall be made through the facilities of the Depository Trust Company designated by the Representatives. Delivery of the Pre-Funded Warrants and Warrants shall be made by physical delivery to be received or directed by the Underwriters (or by an applicable investor purchasing Pre-Funded Warrants and Warrants) no later than one (1) business day following the Closing Date. In the event that an investor purchasing Pre-Funded Warrants or Warrants delivers an Exercise Notice (as defined in the Pre-Funded Warrants and Warrants) prior to the Closing Date, to exercise any Pre-Funded Warrants or Warrants between the date hereof and the Closing Date, the Company shall deliver the Pre-Funded Warrant Shares or Warrant Shares, as applicable, with respect to any exercise to such investor on the Closing Date as specified in such Exercise Notice.

(d) The Company shall issue to the Representatives or their designees on the Closing Date, warrants (the "Underwriter Warrants") to purchase that number of shares of Common Stock (the "Underwriter Warrant Shares") equal to three percent (3.0%) of the aggregate number of Shares that may be issued on the Closing Date. The Underwriter Warrants shall be in a customary form reasonably acceptable to the Representatives, expiring on the five-year anniversary of the date of their issuance at an initial exercise price of \$[ ] , which is equal to 125% of the public offering price of the Shares.

(e) Subject to FINRA Rule 5110(g)(5)(B), in the event that this offering is not consummated as contemplated herein, the Underwriters will be entitled to receive a cash fee equal to (a) seven percent (7.0%) of the gross proceeds received by us from any financing or capital raising transaction (each, a "**Tail Financing**") and (b) warrants to purchase common stock equal to three percent (3%) of the number of shares of Common Stock sold in a subsequent offering, to the extent that such proceeds are provided to us by any investor directly introduced by the underwriters to the Company during the period beginning on August 28, 2023 and ending on the earlier of the Closing Date or the earlier termination of the engagement (the "**Engagement Period**") and the transaction is consummated at any time during the Engagement Period or within the one-month period following the Engagement Period, provided that such financing or capital raising transaction is by a party actually introduced to the Company in an offering in which the Company has direct knowledge of such party's participation.

#### **5. Covenants.**

(a) The Company covenants and agrees with the Representatives as follows:

(i) The Company shall prepare the Prospectus in a form approved by the Underwriters and file such Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second (2nd) business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by the Rules and Regulations of the Commission.

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(ii) During the period beginning on the date hereof and ending on the earlier of (A) such date as determined by the Representatives that the Prospectus is no longer required by law to be delivered in connection with sales by an underwriter or dealer or (B) the completion of the distribution of the Securities by the Underwriters (the "Prospectus Delivery Period"), prior to amending or supplementing the Registration Statement, including any Rule 462(b) Registration Statement, the Time of Sale Disclosure Package or the Prospectus, the Company shall furnish to the Representatives for review and comment a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Representatives reasonably object.

(iii) From the date of this Agreement until the end of the Prospectus Delivery Period, the Company shall promptly advise the Representatives in writing (A) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission, (B) of the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to the Time of Sale Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus, (C) of the time and date that any post-effective amendment to the Registration Statement becomes effective and (D) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending its use or the use of the Time of Sale Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Stock from any securities exchange upon which it is listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time during the Prospectus Delivery Period, the Company will use its reasonable efforts to obtain the lifting of such order at the earliest possible moment. Additionally, the Company agrees during the Prospectus Delivery Period that it shall comply with the provisions of Rules 424(b), 430A and 430B, as applicable, under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission (without reliance on Rule 424(b)(8) or 164(b) of the Securities Act).

(iv) (A) During the Prospectus Delivery Period, the Company will comply with all requirements imposed upon it by the Securities Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, and by the Exchange Act, as now and hereafter amended, so far as necessary to permit the continuance of sales of or dealings in the Securities as contemplated by the provisions hereof, the Time of Sale Disclosure Package, the Registration Statement and the Prospectus. If during the Prospectus Delivery Period any event occurs as the result of which would cause the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which such statement was made, not misleading, or if during such period it is necessary or appropriate in the opinion of the Company or its counsel or the Underwriters or their counsel to amend the Registration Statement or supplement the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to comply with the Securities Act or to file under the Exchange Act any document that would be deemed to be incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, the Company will promptly notify the Underwriters, allow the Underwriters the opportunity to provide reasonable comments on such amendment, Prospectus or document, and will amend the Registration Statement or supplement the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(B) During the Prospectus Delivery Period, if at any time following the issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development the result of which is that such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or any Prospectus or included or would include, when taken together with the Time of Sale Disclosure Package, an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company has promptly notified or promptly will notify the Underwriters and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(v) The Company shall take or cause to be taken all necessary action to qualify the Securities for sale under the securities laws of such jurisdictions as the Underwriters reasonably designate and to continue such qualifications in effect so long as required for the distribution of the Securities, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified, to execute a general consent to service of process in any state or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise subject.

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(vi) The Company shall deliver to the Underwriters and counsel for the Underwriters copies, without charge, of the Registration Statement, the Prospectus, any Issuer Free Writing Prospectus, and all amendments and supplements to such documents, and signed copies of all consents and certificates of experts, in each case as soon as available and in such quantities as the Underwriters may from time to time reasonably request.

(vii) The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 of the Rules and Regulations.

(viii) The Company shall use commercially reasonable efforts to maintain the listing of the shares of Common Stock on Nasdaq or a comparable exchange for at least two (2) years from the date of this Agreement unless the Company is acquired, merged out of existence or goes private under Exchange Act Rule 13e-3 during such time.

(ix) For a period of two (2) years from the Closing Date, the Company shall use its commercially reasonable efforts to maintain the registration of the Shares and, when issued, the Pre-Funded Warrant Shares and Warrant Shares under the Exchange Act unless the Company is acquired, merged out of existence or goes private under Exchange Act Rule 13e-3 during such time.

(x) For so long as any Pre-Funded Warrants or Warrants remain outstanding, the Company shall continue to reserve and keep available at all times, free of pre-emptive rights, a sufficient number of authorized shares of Common Stock for the purpose of enabling the Company to effect the issuance of the Pre-Funded Warrant Shares and Warrant Shares, as applicable.

(xi) The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or cause to be paid all reasonable out-of-pocket expenses of the Underwriters relating to the Offering, including a maximum of \$65,000 for the fees and disbursements of counsel to the Underwriters. The Company has also agreed to pay to the Representatives, at the Closing Date, a non-accountable expense allowance equal to 1% of the gross proceeds of the Offering.

(xii) The Company intends to apply the net proceeds from the sale of the Securities to be sold by it hereunder for the purposes set forth in the Time of Sale Disclosure Package and in the Prospectus.

(xiii) The Company has not taken and will not take, directly or indirectly, during the Prospectus Delivery Period, any action designed to or which might reasonably be expected to cause or result in, or that has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities.

(xiv) The Company represents and agrees that, unless it obtains the prior written consent of the Representatives, and the Representatives represent and agree that, unless they obtain the prior written consent of the Company, it has not made and will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule II. Any such free writing prospectus set forth on Schedule II and consented to by the Company and the Representatives is hereinafter referred to as a "Permitted Free Writing Prospectus." The Company represents that it has treated, or agrees that it will treat, each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied or will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record-keeping.

(xv) The Company hereby agrees that, without the prior written consent of the Representatives, it will not, during the period ending 90 days after the date hereof ("Lock-Up Period"), (A) sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, or file (or participate in the filing of) a registration statement with the Commission in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Exchange Act with respect to, any Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, (B) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of Common Stock or any other securities of the Company that are substantially similar to Common Stock, or any securities convertible into or exchangeable or exercisable for, or any warrants or other rights to purchase, the foregoing, whether any such transaction is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (C) publicly announce an intention to effect any transaction specified in clause (A) or (B). The restrictions contained in the preceding sentence shall not apply to (V) the Securities to be sold hereunder, (W) the issuance of Common Stock upon the exercise of options or warrants disclosed as outstanding in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package or the Prospectus provided that such options or warrants have not been amended since the date of this Agreement to increase the number of such options or warrants or to decrease the exercise price, exchange price or conversion price of such options or warrants (other than in connection with stock splits or combinations) or to extend the term of such securities, (X) the issuance of employee stock options not exercisable during the Lock-Up Period and the grant of restricted stock awards or restricted stock units pursuant to equity incentive plans described in the Registration Statement (excluding exhibits thereto) and the Prospectus or (Y) the filing of registration statements on Form S-8 with respect to the shares of Common Stock reserved for issuance under the Company's equity incentive plans as in effect from time to time.

(xvi) Prior to the Closing Date, the Company will issue no press release or other communications directly or indirectly and hold no press conference with respect to the Company, the condition, financial or otherwise, or the earnings, business affairs or business prospects of any of them, or the offering of the Securities without the prior written consent of the Representatives unless in the judgment of the Company and its counsel, and after notification to the Representatives, such press release or communication is required by law.

(xvii) The Company hereby agrees to engage and maintain, at its expense, a registrar and transfer agent for the Securities.

**6. Conditions of the Underwriters' Obligations.** The obligations of each Underwriter hereunder to purchase the Securities are subject to the accuracy, as of the date hereof and at the Closing Date (as if made at the Closing Date), of and compliance with all representations, warranties and agreements of the Company contained herein, the performance by the Company of its obligations hereunder and the following additional conditions:

(a) If filing of the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, is required under the Securities Act or the Rules and Regulations, the Company shall have filed the Prospectus (or such amendment or supplement) or such Issuer Free Writing Prospectus with the Commission in the manner and within the time period so required (without reliance on Rule 424(b)(8) or 164(b) under the Securities Act); the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Rule 462(b) Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened by the Commission; any request of the Commission or the Representatives for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, the Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the Underwriters' satisfaction.

(b) The Shares, the Pre-Funded Warrant Shares and the Warrant Shares shall be qualified and approved for listing on Nasdaq.

(c) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(d) The Representatives shall not have reasonably determined, and advised the Company, that the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus, contains an untrue statement of fact which, in the reasonable opinion of the Representatives, is material, or omits to state a fact which, in the reasonable opinion of the Representatives, is material and is required to be stated therein or necessary to make the statements therein not misleading

(e) Between the date hereof and the Closing Date (A) no downgrading shall have occurred in the rating accorded any of the Company's securities by any "nationally recognized statistical rating organization," as that term is defined by the Commission for purposes of Rule 436(g)(2) under the Securities Act, and (B) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's securities.

(f) On the Closing Date, there shall have been furnished to the Representatives the opinion and negative assurance letter of Lowenstein Sandler LLP, counsel for the Company, dated as of the Closing Date and addressed to the Representatives as representatives of the Underwriters, in form and substance reasonably satisfactory to the Representatives.

(g) The Representatives shall have received a letter of KMPG LLP, on the date hereof and on the Closing Date, addressed to the Representatives as representatives of the Underwriters, in form and substance reasonably satisfactory to the Representatives, confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, and confirming, as of the date of each such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Time of Sale Disclosure Package, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm, of the type ordinarily included in accountants' "comfort letters" to underwriters, with respect to the financial information, including any financial information contained in the SEC Reports filed by the Company or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, and other matters required by the Representatives.

(h) On the Closing Date, there shall have been furnished to the Representatives a certificate, dated the Closing Date and addressed to the Representatives as representatives of the Underwriters, signed by the chief executive officer and the chief financial officer of the Company, in their capacity as officers of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement that are qualified by materiality or by reference to any Material Adverse Effect are true and correct in all respects, and all other representations and warranties of the Company in this Agreement are true and correct, in all material respects, as if made at and as of the Closing Date, and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to the Closing Date;

(ii) No stop order or other order (A) suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof, (B) suspending the qualification of the Securities for offering or sale, or (C) suspending or preventing the use of the Time of Sale Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to their knowledge, is contemplated by the Commission or any state or regulatory body; and

(iii) There has been no occurrence of any event resulting or reasonably likely to result in a Material Adverse Effect during the period from and after the date of this Agreement and prior to the Closing Date.

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(i) On the Closing Date, there shall have been furnished to the Representatives a certificate, dated the Closing Date and addressed to the Representatives as representatives of the Underwriters, signed by the secretary of the Company, in such person's capacity as an officer of the Company, to the effect that: (i) that each of the certificate of incorporation, as amended and the amended and restated bylaws of the Company is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) as to the accuracy and completeness of all correspondence between the Company or its counsel and with each of the Commission and Nasdaq; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

(j) On or before the date hereof, the Representatives shall have received duly executed "lock-up" agreements, in the form attached hereto as **Exhibit C**, between the Representatives and each of the parties set forth on Schedule IV hereto.

(k) The Representatives shall have received electronic copies of the Pre-Funded Warrants and Warrants executed by the Company.

(l) The Common Stock shall be registered under the Exchange Act and shall be listed on Nasdaq, and the Company shall not have taken any action designed to terminate, or likely to have the effect of terminating, the registration of the Common Stock under the Exchange Act or delisting or suspending from trading the Common Stock from Nasdaq, nor shall the Company have received any information suggesting that the Commission is contemplated terminating such registration or listing.

(m) On the Closing Date, the Firm Shares shall have been delivered via the Depository Trust Company system to the accounts of the Underwriters.

(n) The Company shall have furnished to the Representatives and counsel to the Underwriters such additional documents, certificates and evidence as the Representatives or counsel to the Underwriters may have reasonably requested.

If any condition specified in this Section 6 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Representatives by notice to the Company at any time at or prior to the Closing Date and such termination shall be without liability of any party to any other party, except that Section 5(a)(xi), Section 7 and Section 8 shall survive any such termination and remain in full force and effect.

#### **7. Indemnification and Contribution.**

(a) The Company agrees to indemnify, defend and hold harmless the Underwriters, their affiliates, directors and officers and employees, and each person, if any, who controls an Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which the Underwriters or such person may become subject, under the Securities Act or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon (i) an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Rules and Regulations, or arise out of or are based upon the omission from the Registration Statement, or alleged omission to state therein, a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) an untrue statement or alleged untrue statement of a material fact contained in the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto (including any documents filed under the Exchange Act and deemed to be incorporated by reference into the Registration Statement or the Prospectus), or any Issuer Free Writing Prospectus or the Marketing Materials, or arising out of or based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, (iii) in whole or in part, any inaccuracy in the representations and warranties of the Company contained herein, or (iv) in whole or in part, any failure of the Company to perform its obligations hereunder or under law, and will reimburse the Underwriters for any legal or other expenses reasonably incurred by it in connection with evaluating, investigating or defending against such loss, claim, damage, liability or action (or any legal or other expense reasonably incurred in connection with the evaluation, investigation or defense thereof); *provided, however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus, in reliance upon and in conformity with the Underwriters' Information.

(b) The Underwriters will indemnify, defend and hold harmless the Company, its affiliates, directors, officers and employees, 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 losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus or any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Act, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus or any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Act in reliance upon and in conformity with the Underwriters' Information, and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with defending against any such loss, claim, damage, liability or action.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the failure to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, it shall notify the indemnifying party of the commencement thereof, and the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party, and after notice from the indemnifying party to such



indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof; *provided, however*, that if (i) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (ii) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party), or (iii) the indemnifying party has not in fact employed counsel reasonably satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, the indemnified party shall have the right to employ a single counsel to represent it in any claim in respect of which indemnity may be sought under subsection (a) or (b) of this Section 7, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the indemnified party as incurred.

The indemnifying party under this Section 7 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, 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 party is a party or could be named and indemnity was or would be sought hereunder by such indemnified party, unless such settlement, compromise or consent (a) includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such action, suit or proceeding and (b) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

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(d) If the indemnification provided for in this Section 7 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering and sale of the Securities 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 Underwriters on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the first sentence of this subsection (d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim that is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), the Underwriters shall not be required to contribute any amount in excess of the amount of the Underwriters' discounts commissions set forth in the table on the cover of the Prospectus. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The obligations of the Company under this Section 7 shall be in addition to any liability that the Company may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to each person, if any, who controls the Underwriters within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act; and the obligations of the Underwriters under this Section 7 shall be in addition to any liability that the Underwriters may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to the Company, and officers, directors and each person who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act.

**8. Substitution of Underwriters.** If any Underwriter shall default in its obligation to purchase on any Closing Date the Securities agreed to be purchased hereunder on such Closing Date, the Representatives shall have the right, within 36 hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters, to purchase such Securities on the terms contained herein. If, however, the Representatives shall not have completed such arrangements within such 36-hour period, then the Company shall be entitled to a further period of 36 hours within which to procure another party or other parties satisfactory to the Underwriters to purchase such Securities on such terms. If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by the Representatives and the Company as provided above, the aggregate number of Securities which remains unpurchased on such Closing Date does not exceed one-eleventh of the aggregate number of all the Securities that all the Underwriters are obligated to purchase on such date, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Securities which such Underwriter agreed to purchase hereunder at such date and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Securities which such Underwriter agreed to purchase hereunder) of the Securities of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default. In any such case, either the Representatives or the Company shall have the right to postpone the applicable Closing Date for a period of not more than seven days in order to effect any necessary changes and arrangements (including any necessary amendments or supplements to the Registration Statement or Prospectus or any other documents), and the Company agrees to file promptly any amendments to the Registration Statement or the Prospectus which in the opinion of the Company and the Underwriters and their counsel may thereby be made necessary.

If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by the Representatives and the Company as provided above, the aggregate number of such Securities which remains unpurchased exceeds 10% of the aggregate number of all the Securities to be purchased at such date, then this Agreement shall terminate, without liability on the part of any non-defaulting Underwriter to the Company, and without liability on the part of the Company, except that the provisions of Sections 5(a)(xi), 7 and 10 shall at all times be effective and shall survive termination. The provisions of this Section 8 shall not in any way affect the liability of any defaulting Underwriter to the Company or the non-defaulting Underwriters arising out of such default. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section 8 with like effect as if such person had originally been a party to this Agreement with respect to such Securities. If this Agreement is terminated by the Representatives pursuant to this Section 8, the Company will have no obligation to reimburse any defaulting Underwriter.

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**9. Representations and Agreements to Survive Delivery:** All representations, warranties, and agreements of the Company herein or in certificates delivered pursuant hereto, including, but not limited to, the agreements of the Underwriters and the Company contained in Section 5(a)(xi) and Section 7 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriters or any controlling person thereof, or the Company or any of its officers, directors, or controlling persons, and shall survive delivery of, and payment for, the Securities to and by the Underwriters hereunder.

#### **10. Termination of this Agreement**

(a) The Representatives shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the Closing Date, if in the discretion of the Representatives, (i) there has occurred any material adverse change in the securities markets or any event, act or occurrence that has materially disrupted, or in the opinion of the Representatives, will in the future materially disrupt, the securities markets or there shall be such a material adverse change in general financial, political or economic conditions or the effect of international conditions on the financial markets in the United States is such as to make it, in the judgment of the Representatives, inadvisable or impracticable to market the Shares or enforce contracts for the sale of the Shares (ii) trading in the Company's Common Stock shall have

been suspended by the Commission or Nasdaq or trading in securities generally on Nasdaq, the New York Stock Exchange (NYSE) or NYSE American shall have been suspended, (iii) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on Nasdaq, the NYSE or NYSE American, by such exchange or by order of the Commission or any other governmental authority having jurisdiction, (iv) a banking moratorium shall have been declared by federal or state authorities, (v) there shall have occurred any attack on, outbreak or escalation of hostilities or act of terrorism involving the United States, any declaration by the United States of a national emergency or war, any substantial change or development involving a prospective substantial change in United States or international political, financial or economic conditions or any other calamity or crisis, (vi) the Company suffers any loss by strike, fire, flood, earthquake, accident or other calamity, whether or not covered by insurance, or (vii) in the reasonable judgment of the Representatives, there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Prospectus, any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiaries considered as a whole, whether or not arising in the ordinary course of business. Any such termination shall be without liability of any party to any other party except that the provisions of Section 5(a)(xi) and Section 7 hereof shall at all times be effective and shall survive such termination.

(b) If the Representatives elect to terminate this Agreement as provided in this Section, the Company shall be notified promptly by the Representatives by telephone, confirmed by letter.

**11. Notices.** Except as otherwise provided herein, all communications hereunder shall be in writing and, if to the Representatives, shall be mailed, delivered or telecopied to Chardan Capital Markets, LLC, 17 State Street, Suite 2100, New York, NY 10004, Attention: Shai Gerson, E-Mail: sgerson@chardan.com and to Ladenburg Thalmann & Co. Inc., 640 5<sup>th</sup> Avenue, 4<sup>th</sup> Floor, New York, NY 10019, Attention: Syndicate Department, E-Mail: prospectus@ladenburg.com with a copy (which shall not constitute notice) to Lucosky Brookman LLP, 101 Wood Avenue South, 5<sup>th</sup> Floor, Woodbridge, NJ 08830, Attention: Joseph M. Lucosky, Esq., E-mail: jlucosky@lucbro.com.; and if to the Company, shall be mailed, delivered or telecopied to it at 100 Overlook Center, Princeton, NJ 08540, E-mail: jcross@sonnetbio.com, Attention: Jay Cross, with a copy (which shall not constitute notice) to Lowenstein Sandler LLP, One Lowenstein Drive, Roseland, NJ 07068, Attention: Steve Skolnick, E-mail: sskolnick@lowenstein.com; or in each case to such other address as the person to be notified may have requested in writing. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

**12. Persons Entitled to Benefit of Agreement.** This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 7. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term "successors and assigns" as herein used shall not include any purchaser, as such purchaser, of any of the Securities from the Underwriter.

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**13. Absence of Fiduciary Relationship.** The Company acknowledges and agrees that: (a) the Underwriters have been retained solely to act as underwriter in connection with the sale of the Securities and that no fiduciary, advisory or agency relationship between the Company and the Underwriters have been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Underwriters have advised or are advising the Company on other matters; (b) the price and other terms of the Securities set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriters and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriters and their affiliates are engaged in a broad range of transactions that may involve interests that differ from those of the Company and that the Underwriters have no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; (d) it has been advised that the Underwriters are acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of the Underwriters, and not on behalf of the Company.

**14. Entire Agreement.** This Agreement represents the entire agreement of the parties and supersedes all prior or contemporaneous written or oral agreements between them concerning the offer and sale of the Securities.

**15. Amendments and Waivers.** No supplement, modification or waiver of this Agreement shall be binding unless executed in writing by the party to be bound thereby. The failure of a party to exercise any right or remedy shall not be deemed or constitute a waiver of such right or remedy in the future. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (regardless of whether similar), nor shall any such waiver be deemed or constitute a continuing waiver unless otherwise expressly provided.

**16. Partial Unenforceability.** The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision.

**17. Governing Law.** This Agreement shall be governed by and construed in accordance with the law of the State of New York.

**18. Submission to Jurisdiction.** The Company irrevocably (a) submits to the jurisdiction of any court of the State of New York for the purpose of any suit, action, or other proceeding arising out of this Agreement, or any of the agreements or transactions contemplated by this Agreement, the Registration Statement and the Prospectus (each a "Proceeding"), (b) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (c) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (d) agrees not to commence any Proceeding other than in such courts, and (e) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum. THE COMPANY (ON BEHALF OF ITSELF AND, TO THE FULLEST EXTENT PERMITTED BY LAW, ON BEHALF OF ITS RESPECTIVE EQUITY HOLDERS AND CREDITORS) HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED UPON, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, THE REGISTRATION STATEMENT, AND THE PROSPECTUS.

**19. Counterparts.** This Agreement may be executed and delivered (including by facsimile transmission and electronic mail attaching a portable document file (.pdf)) in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

[Signature Page Follows]

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Please sign and return to the Company the enclosed duplicates of this Agreement whereupon this Agreement will become a binding agreement between the Company and the Representatives in accordance with its terms.

Very truly yours,

SONNET BIOTHERAPEUTICS HOLDINGS, INC.

By: \_\_\_\_\_  
Name: Pankaj Mohan  
Title: President and CEO

Confirmed as of the date first above-mentioned  
On behalf of its and as Representatives of the several Underwriters named on Schedule  
I hereto:

CHARDAN CAPITAL MARKETS, LLC

By: \_\_\_\_\_  
Name: Shai Gerson  
Title: Managing Director

LADENBURG THALMANN & CO. INC.

By: \_\_\_\_\_  
Name: Vlad Ivanov  
Title: Managing Director

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**SCHEDULE I**

<u>Number of Firm Shares</u>	<u>Number of Pre-Funded Warrants</u>	<u>Number of Firm Warrants</u>
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Chardan Capital Markets, LLC  
Ladenburg Thalmann & Co. Inc.

**Total:**

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**SCHEDULE II**

Free Writing Prospectus

None.

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**SCHEDULE III**

List of Lock-Up Parties

1. Directors
    - a. Albert Dyrness
    - b. Donald Griffith
    - c. Lori McNeill
    - d. Nailesh Bhatt
    - e. Pankaj Mohan (also CEO)
    - f. Raghu Rao
  2. Officers
    - a. Jay Cross
    - b. John Cini
    - c. Richard Kenney
    - d. Susan Dexter
- 

**SCHEDULE IV**

Testing-the-Waters Communications

None.

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**SCHEDULE V**

Significant Subsidiaries

1. Sonnet BioTherapeutics, Inc.
  2. Sonnet BioTherapeutics, CH SA
-

## FORM OF PRE-FUNDED WARRANT

## SONNET BIOTHERAPEUTICS HOLDINGS, INC.

## PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK

Warrant No.: [ ]  
 Number of Shares of Common Stock: [ ]  
 Date of Issuance: [ ] (“**Issuance Date**”)

Sonnet BioTherapeutics Holdings, Inc., a company organized under the laws of Delaware (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [ ], the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, at any time or times on or after [ ] (the “**Initial Exercisability Date**”), until exercised in full (the “**Termination Date**”), [ ] ([ ]) fully paid non-assessable shares of Common Stock (as defined below), subject to adjustment as provided herein (the “**Warrant Shares**”). Except as otherwise defined herein, capitalized terms in this Warrant to Purchase Common Stock (including any Pre-Funded Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, this “**Warrant**”), shall have the meanings set forth in Section 16. This Warrant is one of the Pre-Funded Warrants to Purchase Common Stock (the “**Warrants**”) issued pursuant to (i) that certain Underwriting Agreement, dated as of \_\_\_\_\_, 2023 (the “**Subscription Date**”) by and between the Company and Chardan Capital Markets, LLC and Ladenburg Thalmann & Co., Inc., as representatives of the several underwriters named therein, (ii) the Company’s Registration Statement on Form S-1 (File number 333-\_\_\_\_\_) (the “**Registration Statement**”) under the Securities Act of 1933, as amended (the “**Securities Act**”) and (iii) the Company’s prospectus dated as of \_\_\_\_\_, 2023.

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder at any time or times on or after the Initial Exercisability Date, in whole or in part, by delivery (whether via facsimile, electronic mail or otherwise) of a written notice, in the form attached hereto as Annex A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following the delivery of the Exercise Notice, the Holder shall make payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash by wire transfer of immediately available funds or, if the provisions of Section 1(d) are applicable, by notifying the Company that this Warrant is being exercised pursuant to a Cashless Exercise (as defined in Section 1(d)). The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder, nor shall any ink-original signature or medallion guarantee (or other type of guarantee or notarization) with respect to any Exercise Notice be required. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares and 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 Exercise Notice is delivered to the Company. On or before the first (1st) Trading Day following the date on which the Holder has delivered the applicable Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of the Exercise Notice, in the form attached to the Exercise Notice, to the Holder and the Company’s transfer agent (the “**Transfer Agent**”). So long as the Holder delivers the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period, in each case following the date on which the Exercise Notice has been delivered to the Company, or, if the Holder does not deliver the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the first (1st) Trading Day following the date on which the Aggregate Exercise Price (or notice of a Cashless Exercise) is delivered (such earlier date, or if later, the earliest day on which the Company is required to deliver Warrant Shares pursuant to this Section 1(a), the “**Share Delivery Date**”), the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company (“**DTC**”) Fast Automated Securities Transfer Program, credit such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, or (Y) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program (“**FAST**”), issue and dispatch by overnight courier to the physical address or email address as specified in the Exercise Notice, a certificate or evidence of a credit of book-entry shares, registered in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise. The Company shall be responsible for all fees and expenses of the Transfer Agent and all fees and expenses with respect to the issuance of Warrant Shares via DTC, if any, including without limitation for same day processing. Upon delivery of the Exercise Notice, the Holder shall be deemed for all corporate purposes to have become the holder of record and beneficial owner of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares, as the case may be. If this Warrant is physically delivered to the Company in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three (3) Trading Days after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares issuable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional Warrant Shares are to be issued upon the exercise of this Warrant, but rather the number of Warrant Shares to be issued shall be rounded down to the nearest whole number. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent) which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. The Company’s obligations to issue and deliver Warrant Shares in accordance with the terms and subject to the conditions hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination; provided, however, that the Company shall not be required to deliver Warrant Shares with respect to an exercise prior to the Holder’s delivery of the Aggregate Exercise Price (or notice of a Cashless Exercise) with respect to such exercise.

(b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.0001 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercisability Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.0001 per Warrant Share) shall be required to be paid by the Holder to any Person to affect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate Exercise Price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The exercise price per share of Common Stock under this Warrant shall be \$0.0001, subject to adjustment hereunder (the “**Exercise Price**”).

(c) Company’s Failure to Timely Deliver Securities. If either (I) the Company shall fail for any reason or for no reason to issue to the Holder on or prior to the applicable Share Delivery Date, if (x) the Transfer Agent is not participating in FAST, a certificate or evidence of a book-entry credit for the number of shares of Common Stock to which the Holder is entitled and register such Common Stock on the Company’s share register or (y) the Transfer Agent is participating in FAST, to credit the Holder’s balance account with DTC, for such number of shares of Common Stock to which the Holder is entitled upon the Holder’s exercise of this Warrant or (II) a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are the subject of the Exercise Notice (the “**Exercise Notice Warrant Shares**”) is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and (x) the Company fails to promptly, but in no event later than one (1) Business Day after such registration statement becomes unavailable, to so notify the Holder and (y) the Company is unable to deliver the Exercise Notice Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Exercise Notice Warrant Shares to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred as a “**Notice Failure**” and

together with the event described in clause (I) above, an “**Exercise Failure**”), then, in addition to all other remedies available to the Holder, if on or prior to the applicable Share Delivery Date either (I) if the Transfer Agent is not participating in FAST, the Company shall fail to issue and deliver a certificate or evidence of a book-entry credit to the Holder and register such shares of Common Stock on the Company’s share register or, if the Transfer Agent is participating in FAST, credit the Holder’s balance account with DTC for the number of shares of Common Stock to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) if a Notice Failure occurs, 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 (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. The Company’s current transfer agent participates in FAST. In the event that the Company changes transfer agents while this Warrant is outstanding, the Company shall use commercially reasonable efforts to select a transfer agent that participates in FAST. While this Warrant is outstanding, the Company shall request its transfer agent to participate in FAST with respect to this Warrant. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise. In addition to the foregoing, if the Company fails for any reason to deliver to the Holder the Warrant Shares subject to an Exercise Notice by the second Trading Day following the 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 Weighted Average Price of the Common Stock on the date of the applicable Exercise Notice), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

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(d) **Cashless Exercise.** Notwithstanding anything contained herein to the contrary, if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Exercise Notice Warrant Shares is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of shares of Common Stock determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

A= the total number of shares with respect to which this Warrant is then being exercised.

B= as applicable: (i) the Weighted Average Price of the Common Stock on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the Weighted Average Price on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the Common Stock as of the time of the Holder’s execution of the applicable Exercise Notice if such Exercise Notice 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 1(a) hereof or (iii) the Weighted Average Price of the Common Stock on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of “regular trading hours” on such Trading Day.

C= \$0.0001, as adjusted hereunder.

If Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees 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, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 1(d). Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 1(c) and 4(b), in no event will the Company be required to net cash settle a Warrant exercise.

(e) **Disputes.** In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 11.

(f) **Beneficial Ownership.** Notwithstanding anything to the contrary contained herein, the Company shall not affect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of [4.99/9.99]% (the “**Maximum Percentage**”) of the number of shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by the Holder and the other Attribution Parties shall include the number of shares of Common Stock held by the Holder and all other Attribution Parties plus the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred stock or warrants, including the other Warrants) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f). For purposes of this Section 1(f), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”). For purposes of this Warrant, in determining the number of outstanding shares of Common Stock the Holder may acquire upon the exercise of this Warrant without

exceeding the Maximum Percentage, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q and Current Reports on Form 8-K or other public filing with the Securities and Exchange Commission (the "SEC"), as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding (the "**Reported Outstanding Share Number**"). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding shares of Common Stock is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder's beneficial ownership, as determined pursuant to this Section 1(f), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be purchased pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the "**Reduction Shares**") and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail 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 and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of Common Stock to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding shares of Common Stock (as determined under Section 13(d) of the Exchange Act), the number of shares so issued by which the Holder's and the other Attribution Parties' aggregate beneficial ownership exceeds the Maximum Percentage (the "**Excess Shares**") shall be deemed null and void and shall be cancelled ab initio, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the Exchange Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of this Warrant.

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(g) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of shares of Common Stock at least equal to 100% of the maximum number of shares of Common Stock as shall be necessary to satisfy the Company's obligation to issue shares of Common Stock under the Warrants then outstanding (without regard to any limitations on exercise) (the "**Required Reserve Amount**"); provided that at no time shall the number of shares of Common Stock reserved pursuant to this Section 1(g) be reduced other than in connection with any exercise of Warrants or such other event covered by Section 2(c) below. The Required Reserve Amount (including, without limitation, each increase in the number of shares so reserved) shall be allocated pro rata among the holders of the Warrants based on the number of shares of Common Stock issuable upon exercise of Warrants held by each holder thereof on the Issuance Date (without regard to any limitations on exercise) (the "**Authorized Share Allocation**"). In the event that a holder shall sell or otherwise transfer any of such holder's Warrants, each transferee shall be allocated a pro rata portion of such holder's Authorized Share Allocation. Any shares of Common Stock reserved and allocated to any Person which ceases to hold any Warrants shall be allocated to the remaining holders of Warrants, pro rata based on the number of shares of Common Stock issuable upon exercise of the Warrants then held by such holders thereof (without regard to any limitations on exercise).

(h) Insufficient Authorized Shares. If at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance the Required Reserve Amount (an "**Authorized Share Failure**"), then the Company shall promptly take all action reasonably necessary to increase the Company's authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for this Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than ninety (90) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders' approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if at any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the shares of its issued and outstanding shares of Common Stock to approve the increase in the number of authorized shares of Common Stock, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C.

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

(a) Intentionally omitted.

(b) Intentionally omitted.

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

3. RIGHTS UPON DISTRIBUTION OF ASSETS. In addition to any adjustments pursuant to Section 2 above, if, on or after the Subscription Date and on or prior to the Termination Date, the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets 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 or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before the date on 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 and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Distribution to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

#### 4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Section 2 above, if at any time on or after the Subscription Date and on or prior to the Termination Date the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class 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 or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) 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 Common Stock are to be determined for the grant, issuance 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 and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such Common Stock as a result of such Purchase Right (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation).

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(b) Fundamental Transaction. The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 4(b), including agreements to 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, including, without limitation, which is exercisable for a corresponding number of shares of capital stock 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 pursuant to such Fundamental Transaction and the value of such shares of capital stock, such adjustments to the 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). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for the Company (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction, in lieu of the shares of Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a “**Corporate Event**”), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Termination Date, in lieu of the shares of the Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (collectively, the “**Corporate Event Consideration**”) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). The provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Requisite Holders. The provisions of this Section 4(b) shall apply similarly and equally to successive Fundamental Transactions and Corporate Events.

5. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation or Bylaws, or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issuance 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, and will at all times in good faith carry out all of the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant, and (iii) shall, so long as any of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the exercise of the Warrants, the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of the Warrants then outstanding (without regard to any limitations on exercise).

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6. WARRANT HOLDER NOT DEEMED A STOCKHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person’s capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of capital stock of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person’s capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the stockholders of the Company generally, contemporaneously with the giving thereof to the stockholders.

#### 7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (but without the obligation to post a bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender.

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

8. NOTICES. Whenever notice is required to be given under this Warrant, including, without limitation, an Exercise Notice, unless otherwise provided herein, such notice shall be given in writing, (i) if delivered (a) from within the domestic United States, by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, electronic mail or by facsimile or (b) from outside the United States, by International Federal Express, electronic mail or facsimile, and (ii) will be deemed given (A) if delivered by first-class registered or certified mail domestic, three (3) Business Days after so mailed, (B) if delivered by nationally recognized overnight carrier, one (1) Business Day after so mailed, (C) if delivered by International Federal Express, two (2) Business Days after so mailed and (D) at the time of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 prior to 5:00 p.m. (New York time) on a Trading Day, (E) the next Trading Day after the date of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 on a day that is not a Trading Day or later than 5:00 p.m. (New York time) on any Trading Day and (F) if delivered by facsimile, upon electronic confirmation of delivery of such facsimile, and will be delivered and addressed as follows:

(i) if to the Company, to:

Sonnet BioTherapeutics Holdings, Inc.  
100 Overlook Center  
Princeton, NJ 08540  
Attention: Jay Cross, Chief Financial Officer  
Email: jcross@sonnetbio.com

(ii) if to the Holder, at such address or other contact information delivered by the Holder to the Company or as is on the books and records of the Company.

The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least fifteen (15) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder. It is expressly understood and agreed that the time of exercise specified by the Holder in each Exercise Notice shall be definitive and may not be disputed or challenged by the Company.

9. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may be amended or waived and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

10. GOVERNING LAW; JURISDICTION; JURY TRIAL. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company hereby irrevocably submits to the exclusive jurisdiction of the courts of the State of New York and of the United States of America sitting in The City and County of New York 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 brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company 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 to the Company at the address set forth in Section 8(i) above or such other address as the Company subsequently delivers to the Holder and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. 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. **THE COMPANY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

11. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile or electronic mail within two (2) Business Days of receipt of the Exercise Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile or electronic mail (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

12. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and any other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

13. TRANSFER. This Warrant and the Warrant Shares may be offered for sale, sold, transferred, pledged or assigned without the consent of the Company.



14. **SEVERABILITY; CONSTRUCTION; HEADINGS.** If any provision of this Warrant is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Warrant so long as this Warrant as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s). This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

15. **DISCLOSURE.** Upon receipt or delivery by the Company of any notice in accordance with the terms of this Warrant, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, non-public information relating to the Company or its subsidiaries, the Company shall contemporaneously with any such receipt or delivery publicly disclose such material, non-public information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice contains material, non-public information relating to the Company or its subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, non-public information relating to the Company or its subsidiaries.

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

(a) **"Affiliate"** means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that "control" of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(b) **"Attribution Parties"** means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Subscription Date, directly or indirectly managed or advised by the Holder's investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company's Common Stock would or could be aggregated with the Holder's and the other Attribution Parties for purposes of Section 13(d) of the Exchange Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

(c) **"Bid Price"** means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported in the OTC Link or "pink sheets" by OTC Markets Group Inc. as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

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

(e) **"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.

(f) **"Closing Bid Price"** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the OTC Link or "pink sheets" by OTC Markets Group Inc. If the Closing Bid Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

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

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

(i) **"Eligible Market"** means The Nasdaq Capital Market, the NYSE American LLC, The Nasdaq Global Select Market, The Nasdaq Global Market or The New York Stock Exchange, Inc.

(j) **"Fundamental Transaction"** means (A) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company or any of its "significant subsidiaries" (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) make, or allow one or more Subject Entities to make, or allow the Company to be subject to or have its shares of Common Stock be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding shares of Common Stock, (y) 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of shares of Common Stock such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of at least 50% of the outstanding shares of Common Stock, or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject

Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding shares of Common Stock, (y) at least 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of shares of Common Stock such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its shares of Common Stock, (B) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allow any Subject Entity individually or the Subject Entities in the aggregate to be or become the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding shares of Common Stock, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock not held by all such Subject Entities as of the Subscription Date calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other stockholders of the Company to surrender their Common Stock without approval of the stockholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(k) "**Group**" means a "group" as that term is used in Section 13(d) of the Exchange Act and as defined in Rule 13d-5 thereunder.

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

(m) "**Parent Entity**" of a Person means an entity that, directly or indirectly, controls the applicable Person, including such entity whose common stock or equivalent equity security is quoted or listed on an Eligible Market (or, if so elected by the Holder, any other market, exchange or quotation system), or, if there is more than one such Person or such entity, the Person or such entity designated by the Holder or in the absence of such designation, such Person or entity with the largest public market capitalization as of the date of consummation of the Fundamental Transaction.

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

(o) "**Principal Market**" means The Nasdaq Capital Market.

(p) "**Requisite Holders**" means the holders of the Warrants representing a majority of the shares of Common Stock underlying the Warrants then outstanding.

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(q) "**Standard Settlement Period**" means the standard settlement period, expressed in a number of Trading Days, for the Company's primary trading market or quotation system with respect to the Common Stock that is in effect on the date of receipt of an applicable Exercise Notice.

(r) "**Subject Entity**" means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(s) "**Successor Entity**" means one or more Person or Persons (or, if so elected by the Holder, the Company or Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or one or more Person or Persons (or, if so elected by the Holder, the Company or the Parent Entity) with which such Fundamental Transaction shall have been entered into.

(t) "**Trading Day**" means any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded.

(u) "**Transaction Documents**" means any agreement entered into by and between the Company and the Holder, as applicable.

(v) "**Weighted Average Price**" means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York time (or such other time as the Principal Market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as the Principal Market publicly announces is the official close of trading), as reported by Bloomberg through its "Volume at Price" function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as such market publicly announces is the official close of trading), as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest Closing Bid Price and the lowest closing ask price of any of the market makers for such security as reported in the OTC Link or "pink sheets" by OTC Markets Group Inc. If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11 with the term "Weighted Average Price" being substituted for the term "Exercise Price." All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

*[Signature Page Follows]*

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

Sonnet BioTherapeutics Holdings, Inc.

By:

Name: Pankaj Mohan

Title: Chief Executive Officer

*[Signature Page to Pre-Funded Warrant]*

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS  
PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK  
SONNET BIOTHERAPEUTICS HOLDINGS, INC.

The undersigned holder hereby exercises the right to purchase \_\_\_\_\_ shares of Common Stock (“**Warrant Shares**”) of Sonnet BioTherapeutics Holdings, Inc., a company organized under the law of Delaware (the “**Company**”), evidenced by the attached Pre-Funded Warrant to Purchase Common Stock (the “**Warrant**”). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The holder intends that payment of the Exercise Price shall be made as:

\_\_\_\_\_ a “**Cash Exercise**” with respect to \_\_\_\_\_ Warrant Shares; and/or  
\_\_\_\_\_ a “**Cashless Exercise**” with respect to \_\_\_\_\_ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder shall pay the Aggregate Exercise Price in the sum of \$ \_\_\_\_\_ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder \_\_\_\_\_ Warrant Shares in accordance with the terms of the Warrant.

Date: \_\_\_\_\_, \_\_\_\_\_

Name of Registered Holder

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

ACKNOWLEDGMENT

The Company hereby acknowledges this Exercise Notice and hereby directs Securities Transfer Corporation to issue the above indicated number of shares of Common Stock on or prior to the applicable Share Delivery Date.

Sonnet BioTherapeutics, Inc.

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

EXHIBIT B

FORM OF COMMON WARRANT

SONNET BIOTHERAPEUTICS HOLDINGS, INC.

WARRANT TO PURCHASE COMMON STOCK

Warrant No.: [ ]

Number of Shares of Common Stock: [ ]

Date of Issuance: [ ], 2023 (“**Issuance Date**”)

Sonnet BioTherapeutics Holdings, Inc., a company organized under the law of Delaware (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [ ], the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, at any time or times on or after [ ] (the “**Initial Exercisability Date**”), but not after 11:59 p.m., New York time, on the Expiration Date, (as defined below), [ ] ([●]) fully paid non-assessable shares of Common Stock (as defined below), subject to adjustment as provided herein (the “**Warrant Shares**”). Except as otherwise defined herein, capitalized terms in this Warrant to Purchase Common Stock (including any Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, this “**Warrant**”), shall have the meanings set forth in Section 16. This Warrant is one of the Warrants to Purchase Common Stock (the “**Warrants**”) issued pursuant to (i) that certain Underwriting Agreement, dated as of \_\_\_\_\_, 2023 (the “**Subscription Date**”) by and between the Company and Chardan Capital Markets, LLC and Ladenburg Thalmann & Co. Inc., as representatives of the several underwriters named therein, (ii) the Company’s Registration Statement on Form S-1 (File number 333-269307 under the Securities Act of 1933, as amended (the “**Registration Statement**”) and (iii) the Company’s prospectus dated as of \_\_\_\_\_, 2023.

1. EXERCISE OF WARRANT.

(a) **Mechanics of Exercise.** Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder at any time or times on or after the Initial Exercisability Date, in whole or in part, by delivery (whether via facsimile, electronic mail or otherwise) of a written notice, in the form attached hereto as Annex A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following the delivery of the Exercise Notice, the Holder shall make payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash by wire transfer of immediately available funds or, if the provisions of Section 1(d) are applicable, by notifying the Company that this Warrant is being exercised pursuant to a Cashless Exercise (as defined in Section 1(d)). For clarification purposes, any reference to a Cashless Exercise in this Warrant shall include, without limitation, an “alternative cashless exercise” as contemplated in Section 1(d) below. The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder, nor shall any ink-original signature or medallion guarantee (or other type of guarantee or notarization) with respect to any Exercise Notice be required. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares and 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 Exercise Notice is delivered to the Company. On or before the first (1st) Trading Day following the date on which the Holder has delivered the applicable Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of the Exercise Notice, in the form attached to the Exercise Notice, to the Holder and the Transfer Agent. So long as the Holder delivers the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the earlier of (i) the

second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period, in each case following the date on which the Exercise Notice has been delivered to the Company, or, if the Holder does not deliver the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the first (1st) Trading Day following the date on which the Aggregate Exercise Price (or notice of a Cashless Exercise) is delivered (such earlier date, or if later, the earliest day on which the Company is required to deliver Warrant Shares pursuant to this Section 1(a), the “**Share Delivery Date**”), the Company shall (X) provided that the Transfer Agent is participating in the DTC Fast Automated Securities Transfer Program (“**FAST**”), credit such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, or (Y) if the Transfer Agent is not participating in FAST, issue and dispatch by overnight courier to the physical address or email address as specified in the Exercise Notice, a certificate or evidence of a credit of book-entry shares, registered in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise. The Company shall be responsible for all fees and expenses of the Transfer Agent and all fees and expenses with respect to the issuance of Warrant Shares via DTC, if any, including without limitation for same day processing. Upon delivery of the Exercise Notice, the Holder shall be deemed for all corporate purposes to have become the holder of record and beneficial owner of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares, as the case may be. If this Warrant is physically delivered to the Company in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three (3) Trading Days after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares issuable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional Warrant Shares are to be issued upon the exercise of this Warrant, but rather the number of Warrant Shares to be issued shall be rounded down to the nearest whole number. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent) which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. The Company’s obligations to issue and deliver Warrant Shares in accordance with the terms and subject to the conditions hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination; provided, however, that the Company shall not be required to deliver Warrant Shares with respect to an exercise prior to the Holder’s delivery of the Aggregate Exercise Price (or notice of a Cashless Exercise) with respect to such exercise.

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(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$[●] per share, subject to adjustment as provided herein.

(c) Company’s Failure to Timely Deliver Securities. If either (I) the Company shall fail for any reason or for no reason to issue to the Holder on or prior to the applicable Share Delivery Date, if (x) the Transfer Agent is not participating in FAST, a certificate or evidence of a book-entry credit for the number of shares of Common Stock to which the Holder is entitled and register such Common Stock on the Company’s share register or (y) the Transfer Agent is participating in FAST, to credit the Holder’s balance account with DTC, for such number of shares of Common Stock to which the Holder is entitled upon the Holder’s exercise of this Warrant or (II) a registration statement (which may be the Registration Statement) covering the issuance of the Warrant Shares that are the subject of the Exercise Notice (the “**Exercise Notice Warrant Shares**”) is not available for the issuance of such Exercise Notice Warrant Shares and (x) the Company fails to promptly, but in no event later than one (1) Business Day after such registration statement becomes unavailable, to so notify the Holder and (y) the Company is unable to deliver the Exercise Notice Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Exercise Notice Warrant Shares to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a “**Notice Failure**” and together with the event described in clause (I) above, an “**Exercise Failure**”), then, in addition to all other remedies available to the Holder, if on or prior to the applicable Share Delivery Date either (I) if the Transfer Agent is not participating in FAST, the Company shall fail to issue and deliver a certificate or evidence of a book-entry credit to the Holder and register such shares of Common Stock on the Company’s share register or, if the Transfer Agent is participating in FAST, credit the Holder’s balance account with DTC for the number of shares of Common Stock to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) if a Notice Failure occurs, and if on or 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, within three (3) Trading Days after the Holder’s request, (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions and other out-of-pocket expenses, 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 (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. The Company’s current transfer agent participates in FAST. In the event that the Company changes transfer agents while this Warrant is outstanding, the Company shall use commercially reasonable efforts to select a transfer agent that participates in FAST. While this Warrant is outstanding, the Company shall cause its transfer agent to participate in FAST with respect to this Warrant. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement (which may be the Registration Statement) covering the issuance of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance of such Exercise Notice Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise. In addition to the foregoing, if the Company fails for any reason to deliver to the Holder the Warrant Shares subject to an Exercise Notice by the second Trading Day following the 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 Weighted Average Price of the Common Stock on the date of the applicable Exercise Notice), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

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(d) Cashless Exercise. Notwithstanding anything contained herein to the contrary, if a registration statement (which may be the Registration Statement) covering the issuance of the Exercise Notice Warrant Shares is not available for the issuance of such Exercise Notice Warrant Shares, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “**Net Number**” of shares of Common Stock determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

A = the total number of shares with respect to which this Warrant is then being exercised.

B = as applicable: (i) the Weighted Average Price of the Common Stock on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the Weighted Average Price on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the Common Stock as of the time of the Holder's execution of the applicable Exercise Notice if such Exercise Notice 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 1(a) hereof or (iii) the Weighted Average Price of the Common Stock on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of "regular trading hours" on such Trading Day.

C = the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

If Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 1(d). Without limiting the rights of a Holder to receive Warrant Shares on a "cashless exercise," and to receive the cash payments contemplated pursuant to Sections 1(c) and 4(b), in no event will the Company be required to net cash settle a Warrant exercise.

(e) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 11.

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(f) Beneficial Ownership. Notwithstanding anything to the contrary contained herein, the Company shall not affect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) (the "**Maximum Percentage**") of the number of shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by the Holder and the other Attribution Parties shall include the number of shares of Common Stock held by the Holder and all other Attribution Parties plus the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred stock or warrants, including the other Warrants) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f). For purposes of this Section 1(f), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the "**1934 Act**"). For purposes of this Warrant, in determining the number of outstanding shares of Common Stock the Holder may acquire upon the exercise of this Warrant without exceeding the Maximum Percentage, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q and Current Reports on Form 8-K or other public filing with the Securities and Exchange Commission (the "**SEC**"), as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding (the "**Reported Outstanding Share Number**"). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding shares of Common Stock is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder's beneficial ownership, as determined pursuant to this Section 1(f), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be purchased pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the "**Reduction Shares**") and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail 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 and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of Common Stock to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding shares of Common Stock (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which the Holder's and the other Attribution Parties' aggregate beneficial ownership exceeds the Maximum Percentage (the "**Excess Shares**") shall be deemed null and void and shall be cancelled *ab initio*, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of this Warrant.

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(g) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of shares of Common Stock at least equal to 100% of the maximum number of shares of Common Stock as shall be necessary to satisfy the Company's obligation to issue shares of Common Stock under the Warrants then outstanding (without regard to any limitations on exercise) (the "**Required Reserve Amount**"); provided that at no time shall the number of shares of Common Stock reserved pursuant to this Section 1(g) be reduced other than in connection with any exercise of Warrants or such other event covered by Section 2(c) below. The Required Reserve Amount (including, without limitation, each increase in the number of shares so reserved) shall be allocated pro rata among the holders of the Warrants based on the number of shares of Common Stock issuable upon exercise of Warrants held by each holder thereof on the Issuance Date (without regard to any limitations on exercise) (the "**Authorized Share Allocation**"). In the event that a holder shall sell or otherwise transfer any of such holder's Warrants, each transferee shall be allocated a pro rata portion of such holder's Authorized Share Allocation. Any shares of Common Stock reserved and allocated to any Person which

ceases to hold any Warrants shall be allocated to the remaining holders of Warrants, pro rata based on the number of shares of Common Stock issuable upon exercise of the Warrants then held by such holders thereof (without regard to any limitations on exercise).

(h) Insufficient Authorized Shares. If at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance the Required Reserve Amount (an “**Authorized Share Failure**”), then the Company shall promptly take all action reasonably necessary to increase the Company’s authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for this Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than ninety (90) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders’ approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if at any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the shares of its issued and outstanding shares of Common Stock to approve the increase in the number of authorized shares of Common Stock, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C.

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

(a) Intentionally omitted.

(b) Voluntary Adjustment By Company. Unless prohibited by the rules of the Principal Market, 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 of the Company.

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

3. RIGHTS UPON DISTRIBUTION OF ASSETS. In addition to any adjustments pursuant to Section 2 above, if, on or after the Subscription Date and on or prior to the Expiration Date, the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets 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 or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before the date on 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 and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Distribution to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

4. FUNDAMENTAL TRANSACTIONS. The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 4(b), including agreements to 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, including, without limitation, which is exercisable for a corresponding number of shares of capital stock 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 pursuant to such Fundamental Transaction and the value of such shares of capital stock, such adjustments to the 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). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for the Company (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction, in lieu of the shares of Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a “**Corporate Event**”), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Expiration Date, in lieu of the shares of the Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (collectively, the “**Corporate Event Consideration**”) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). The provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Requisite Holders. The provisions of this Section 4(b) shall apply similarly and equally to successive Fundamental Transactions and Corporate Events. Notwithstanding the foregoing, in the event of a Change of Control (other than a Change of Control which was not approved by the Board of Directors, as to which this right shall not apply), at the request of the Holder delivered before the 30th day after such Change of Control, the Company (or the Successor Entity) shall purchase this Warrant from the Holder by paying to the Holder, within five (5) Business Days after such request (or, if later, on the effective date of the Change of Control), an amount equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the effective date of such Change of Control, payable in cash; provided, that if the applicable Change of Control was not approved by the Company’s Board of Directors, the Black-Scholes Value of the remaining unexercised portion of this Warrant shall be payable at the option of the Company in either (x) Common Stock, whereby the Company would be continually obligated to actively settle shares of Common Stock in the event insufficient authorized shares of Common Stock were available (or corresponding Corporate Event Consideration, as applicable) valued at the value of the consideration received by the shareholders in such Change of Control or (y) cash.

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5. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation or Bylaws, or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issuance 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, and will at all times in good faith carry out all of the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant, and (iii) shall, so long as any of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the exercise of the Warrants, the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of the Warrants then outstanding (without regard to any limitations on exercise).

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

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#### 7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (but without the obligation to post a bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender.

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

8. NOTICES. Whenever notice is required to be given under this Warrant, including, without limitation, an Exercise Notice, unless otherwise provided herein, such notice shall be given in writing, (i) if delivered (a) from within the domestic United States, by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, electronic mail or by facsimile or (b) from outside the United States, by International Federal Express, electronic mail or facsimile, and (ii) will be deemed given (A) if delivered by first-class registered or certified mail domestic, three (3) Business Days after so mailed, (B) if delivered by nationally recognized overnight carrier, one (1) Business Day after so mailed, (C) if delivered by International Federal Express, two (2) Business Days after so mailed and (D) at the time of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 prior to 5:00 p.m. (New York time) on a Trading Day, (E) the next Trading Day after the date of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 on a day that is not a Trading Day or later than 5:00 p.m. (New York time) on any Trading Day and (F) if delivered by facsimile, upon electronic confirmation of delivery of such facsimile, and will be delivered and addressed as follows:

(i) if to the Company, to:

Sonnet BioTherapeutics Holdings, Inc.  
100 Overlook Center  
Princeton, NJ 08540  
Attention: Jay Cross, Chief Financial Officer  
Email: jcross@sonnetbio.com

(ii) if to the Holder, at such address or other contact information delivered by the Holder to the Company or as is on the books and records of the Company.

The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least fifteen (15) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder. It is expressly understood and agreed that the time of exercise specified by the Holder in each Exercise Notice shall be definitive and may not be disputed or challenged by the Company.

9. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may be amended or waived and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

**10. GOVERNING LAW; JURISDICTION; JURY TRIAL.** This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the law of the State of New York. The Company hereby irrevocably submits to the exclusive jurisdiction of the courts of the State of New York and of the United States of America sitting in The City and County of New York 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 brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company 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 to the Company at the address set forth in Section 8(i) above or such other address as the Company subsequently delivers to the Holder and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. 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. **THE COMPANY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

**11. DISPUTE RESOLUTION.** In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile or electronic mail within two (2) Business Days of receipt of the Exercise Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile or electronic mail (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

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**12. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF.** The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and any other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

**13. TRANSFER.** This Warrant and the Warrant Shares may be offered for sale, sold, transferred, pledged or assigned without the consent of the Company.

**14. SEVERABILITY; CONSTRUCTION; HEADINGS.** If any provision of this Warrant is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Warrant so long as this Warrant as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s). This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

**15. DISCLOSURE.** Upon receipt or delivery by the Company of any notice in accordance with the terms of this Warrant, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, non-public information relating to the Company or its subsidiaries, the Company shall contemporaneously with any such receipt or delivery publicly disclose such material, non-public information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice contains material, non-public information relating to the Company or its subsidiaries, the Company shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, non-public information relating to the Company or its subsidiaries.

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

(a) "**Affiliate**" means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that "control" of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(b) "**Attribution Parties**" means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Subscription Date, directly or indirectly managed or advised by the Holder's investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company's Common Stock would or could be aggregated with the Holder's and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

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(c) "**Bid Price**" means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported in the OTC Link or the Pink Open Market as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.



(d) **“Black Scholes Value”** means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day immediately following the first public announcement of the applicable Change of Control, or, if the Change of Control is not publicly announced, the date the Change of Control is consummated, for pricing purposes and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request, (ii) an expected volatility equal to 100%, (iii) the underlying price per share used in such calculation shall be the greater of (A) the sum of the price per share being offered in cash, if any, plus the per share value of any non-cash consideration, if any, being offered in such Change of Control and (B) the greater of (x) the last Weighted Average Price immediately prior to the public announcement of such Change of Control and (y) the last Weighted Average Price immediately prior to the consummation of such Change of Control, (iv) a zero cost of borrow and (v) a 360 day annualization factor.

(e) **“Bloomberg”** means Bloomberg Financial Markets.

(f) **“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.

(g) **“Change of Control”** means any Fundamental Transaction other than (i) any reorganization, recapitalization or reclassification of the Common Stock in which holders of the Company’s voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respects, the holders of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification, (ii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or (iii) a merger in connection with a bona fide acquisition by the Company of any Person in which (x) the gross consideration paid, directly or indirectly, by the Company in such acquisition is not greater than 20% of the Company’s market capitalization as calculated on the date of the consummation of such merger and (y) such merger does not contemplate a change to the identity of a majority of the board of directors of the Company. Notwithstanding anything herein to the contrary, any transaction or series of transactions that, directly or indirectly, results in the Company or the Successor Entity not having Common Stock or common stock, as applicable, registered under the Exchange Act and listed on an Eligible Market shall be deemed a Change of Control.

(h) **“Closing Bid Price”** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the OTC Link or the Pink Open Market. If the Closing Bid Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

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(i) **“Common Stock”** means (i) the Company’s Common Stock, par value \$0.01 per share, and (ii) any capital stock into which such Common Stock shall have been changed or any capital stock resulting from a reclassification of such Common Stock.

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

(k) **“Eligible Market”** means The Nasdaq Capital Market, the NYSE American LLC, The Nasdaq Global Select Market, The Nasdaq Global Market or The New York Stock Exchange, Inc.

(l) **“Expiration Date”** means the date sixty (60) months after the Initial Exercisability Date or, if such date falls on a day other than a Business Day or on which trading does not take place on the Principal Market (a **“Holiday”**), the next day that is not a Holiday.

(m) **“Fundamental Transaction”** means (A) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company or any of its “significant subsidiaries” (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) make, or allow one or more Subject Entities to make, or allow the Company to be subject to or have its shares of Common Stock be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding shares of Common Stock, (y) 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of shares of Common Stock such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding shares of Common Stock, or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding shares of Common Stock, (y) at least 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of shares of Common Stock such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its shares of Common Stock, (B) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allow any Subject Entity individually or the Subject Entities in the aggregate to be or become the “beneficial owner” (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding shares of Common Stock, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock not held by all such Subject Entities as of the Subscription Date calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other stockholders of the Company to surrender their Common Stock without approval of the stockholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

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(n) “**Group**” means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.

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

(p) “**Parent Entity**” of a Person means an entity that, directly or indirectly, controls the applicable Person, including such entity whose common stock or equivalent equity security is quoted or listed on an Eligible Market (or, if so elected by the Holder, any other market, exchange or quotation system), or, if there is more than one such Person or such entity, the Person or such entity designated by the Holder or in the absence of such designation, such Person or entity with the largest public market capitalization as of the date of consummation of the Fundamental Transaction.

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

(r) “**Principal Market**” means The Nasdaq Capital Market.

(s) “**Requisite Holders**” means the holders of the Warrants representing a majority of the shares of Common Stock underlying the Warrants then outstanding.

(t) “**Standard Settlement Period**” means the standard settlement period, expressed in a number of Trading Days, for the Company’s primary trading market or quotation system with respect to the Common Stock that is in effect on the date of receipt of an applicable Exercise Notice.

(u) “**Subject Entity**” means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(v) “**Successor Entity**” means one or more Person or Persons (or, if so elected by the Holder, the Company or Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or one or more Person or Persons (or, if so elected by the Holder, the Company or the Parent Entity) with which such Fundamental Transaction shall have been entered into.

(w) “**Trading Day**” means any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded.

(x) “**Transaction Documents**” means any agreement entered into by and between the Company and the Holder, as applicable.

(y) “**Transfer Agent**” means Securities Transfer Corporation, the current transfer agent of the Company, with a mailing address of 2901 N Dallas Parkway, Suite 380, Plano, TX 75093 and any successor transfer agent of the Company.

(z) “**Weighted Average Price**” means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York time (or such other time as the Principal Market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as the Principal Market publicly announces is the official close of trading), as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as such market publicly announces is the official close of trading), as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest Closing Bid Price and the lowest closing ask price of any of the market makers for such security as reported in the OTC Link or the Pink Open Market. If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11 with the term “Weighted Average Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

*[Signature Page Follows]*

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

**Sonnet BioTherapeutics Holdings, Inc.**

By: \_\_\_\_\_

Name: Pankaj Mohan

Title: Chief Executive Officer

*[Signature Page to Warrant to Purchase Common Stock]*

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**Annex A**

**EXERCISE NOTICE**

**TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS**

**WARRANT TO PURCHASE COMMON STOCK**

**SONNET BIOTHERAPEUTICS HOLDINGS, INC.**

The undersigned holder hereby exercises the right to purchase \_\_\_\_\_ shares of Common Stock (“**Warrant Shares**”) of Sonnet BioTherapeutics Holdings, Inc, a company organized under the laws of Delaware (the “**Company**”), evidenced by the attached Warrant to Purchase Common Stock (the “**Warrant**”). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The holder intends that payment of the Exercise Price shall be made as:

\_\_\_\_\_ a “Cash Exercise” with respect to \_\_\_\_\_ Warrant Shares; and/or

\_\_\_\_\_ a “Cashless Exercise” with respect to \_\_\_\_\_ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder

shall pay the Aggregate Exercise Price in the sum of \$ \_\_\_\_\_ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder \_\_\_\_\_ Warrant Shares in accordance with the terms of the Warrant.

Date: \_\_\_\_\_

Name of Registered Holder

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

#### ACKNOWLEDGMENT

The Company hereby acknowledges this Exercise Notice and hereby directs Securities Transfer Corporation to issue the above indicated number of shares of Common Stock on or prior to the applicable Share Delivery Date.

Sonnet BioTherapeutics Holdings, Inc.

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

EXHIBIT C

#### FORM OF LOCK-UP AGREEMENT

\_\_\_\_\_, 2023

CHARDAN CAPITAL MARKETS, LLC  
17 State Street, Suite 2100  
New York, NY 10004

LADENBURG THALMANN & CO. INC.  
640 5<sup>th</sup> Avenue, 4<sup>th</sup> Floor  
New York, NY 10019

As Representatives of the several Underwriters (as defined herein)

Re: Sonnet BioTherapeutics Holdings, Inc.

Ladies and Gentlemen:

This lock-up agreement (the "Agreement") is being delivered to you in connection with the proposed Underwriting Agreement (the "Underwriting Agreement") between Sonnet BioTherapeutics Holdings, Inc., a Delaware corporation (the "Company"), and Chardan Capital Markets, LLC and Ladenburg Thalmann & Co., Inc., as representatives (the "Representatives") of underwriters (collectively, the "Underwriters") to be named therein, relating to the proposed public offering (the "Offering") of shares of common stock, par value \$0.0001 per share (the "Common Stock"), pre-funded warrants (the "Pre-Funded Warrants") to purchase Common Stock in lieu thereof (the "Pre-Funded Warrant Shares") and warrants (the "Warrants") to purchase Common Stock (the "Warrant Shares") of the Company. The Common Stock, Pre-Funded Warrants, the Pre-Funded Warrant Shares, the Warrants and the Warrant Shares are collectively referred to herein as the "Securities".

In order to induce you to enter into the Underwriting Agreement, and in light of the benefits that the Offering of the Common Stock will confer upon the undersigned in his or her capacity as a security holder and/or an officer, director or employee of the Company, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each Underwriter that, during the period beginning on and including the date of the Underwriting Agreement through and including the date that is the 90th day after the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of the Representatives, directly or indirectly, (i) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, or announce the intention to otherwise dispose of, any Common Stock (including, without limitation, Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations promulgated under the Securities Act of 1933, as amended (the "Securities Act") (such shares, the "Beneficially Owned Shares")) or securities convertible into or exercisable or exchangeable for Common Stock; (ii) enter into any swap, hedge or similar agreement or arrangement that transfers in whole or in part, the economic risk of ownership of the Beneficially Owned Shares or securities convertible into or exercisable or exchangeable for Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, or (iii) engage in any short selling of the Common Stock or securities convertible into or exercisable or exchangeable for Common Stock.

The restrictions set forth in the immediately preceding paragraph shall not apply to any transfers made by the undersigned (i) as *bona fide* gift to any member of the immediate family (as defined below) of the undersigned or to a trust the beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, (ii) by will or intestate succession upon the death of the undersigned, (iii) as forfeitures of Common Stock to satisfy tax withholding obligations of the undersigned in connection with the vesting or exercise of equity awards by the undersigned pursuant to the Company's equity plans, (iv) pursuant to a net exercise or cashless exercise by the undersigned of outstanding equity awards pursuant to the Company's equity plans, provided that that any Common Stock acquired upon the net exercise or cashless exercise of equity awards described in this clause (iv) above shall be subject to the restrictions set forth in the immediately preceding paragraph, (v) pursuant to the conversion or sale of, or an offer to purchase, all or substantially all of the outstanding Common Stock, whether pursuant to a merger, tender offer or otherwise, or (vi) as a *bona fide* gift to a charity or educational institution; provided, however, that in the case of any transfer described in clauses (i) and (ii) above, it shall be a condition to the transfer that (x) the transferee executes and delivers to the Representatives not later than one business day prior to such transfer, a written agreement, in substantially the form of this Agreement (it being understood that any references to "immediate family" in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise reasonably satisfactory in form and substance to the Representatives, and (y) if the undersigned is required to file a report under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") reporting a reduction in beneficial ownership of Common Stock or Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or Beneficially Owned Shares during the Lock-Up Period (as the same may be extended as described above), the undersigned shall include a statement in such report to the effect that such transfer is being made as a gift or by will or intestate succession, as applicable. In addition, in the case of any transfer described in clauses (iii) and (iv) above, it shall be a condition to the transfer that if the undersigned is required to file a

report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of Common Stock or Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or Beneficially Owned Shares during the Lock-Up Period (as the same may be extended as described above), the undersigned shall include a statement in such report to the effect that such transfer is being made for tax withholding obligations or for net exercise or cashless exercise purposes, as applicable. For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, father-in-law, mother, mother-in-law, brother or sister of the undersigned.

Any Securities or Beneficially Owned Shares acquired by the undersigned in the open market after the date of this Agreement will not be subject to the restrictions set forth in this Agreement. After the date of this Agreement, the undersigned may at any time enter into a written plan meeting the requirements of Rule 10b5-1 under the Exchange Act relating to the sale of Securities or Beneficially Owned Shares, if then permitted by the Company, provided that the shares subject to such plan shall be subject to the restrictions set forth in this Agreement during the Lock-Up Period.

In order to enable this covenant to be enforced, the undersigned hereby consents to the placing of legends or stop transfer instructions with the Company's transfer agent with respect to any Common Stock or securities convertible into or exercisable or exchangeable for Common Stock.

The undersigned further agrees that (i) it will not, during the Lock-Up Period (as the same may be extended as described above), make any demand or request for or exercise any right with respect to the registration under the Securities Act of any Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares, and (ii) the Company may, with respect to any Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares owned or held (of record or beneficially) by the undersigned, cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during the Lock-Up Period (as the same may be extended as described above).

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Agreement and that this Agreement has been duly executed and delivered by the undersigned and is a valid and binding Agreement of the undersigned. This Agreement and all authority herein conferred are irrevocable and shall survive the death or incapacity of the undersigned and shall be binding upon the undersigned and upon the heirs, personal representatives, successors and assigns of the undersigned.

The undersigned acknowledges and agrees that whether or not any public offering of Securities actually occurs depends on a number of factors, including market conditions. It is understood and agreed that if (i) the Underwriting Agreement is not executed by October 31, 2023, (ii) the Company notifies you in writing that it does not intend to proceed with the Offering, (iii) the undersigned ceases to serve as an officer or director of the Company, or (iv) the Underwriting Agreement shall be terminated (other than the provisions that survive termination thereof) prior to payment for and delivery of the securities to be sold pursuant thereto, the undersigned shall be released from his or her obligations under the provisions of this Agreement.

This lock-up agreement is intended for the benefit of the addressees hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

This Agreement shall be governed by, and construed in accordance with, the law of the State of New York.

Very truly yours,

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(Name of Stockholder – Please Print)

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(Signature)

Address:

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October 4, 2023

Sonnet BioTherapeutics Holdings, Inc.  
100 Overlook Center, Suite 102  
Princeton, New Jersey 08540

Ladies and Gentlemen:

We have acted as counsel for Sonnet BioTherapeutics Holdings, Inc., a Delaware corporation (the "**Company**"), in connection with the preparation and filing of a Registration Statement on Form S-1 (the "**Registration Statement**"), including a related prospectus filed with the Registration Statement (the "**Prospectus**"), with the Securities and Exchange Commission (the "**Commission**") pursuant to the Securities Act of 1933, as amended (the "**Securities Act**"), covering an underwritten public offering of (A) up to \$10,000,000 of either (i) shares (the "**Shares**") of common stock par value \$0.0001 per share (the "**Common Stock**") or (ii) pre-funded warrants to purchase shares of Common Stock (each a "**Pre-Funded Warrant**," and each share of Common Stock underlying a Pre-Funded Warrant, a "**Pre-Funded Warrant Share**"), in lieu of such Shares, and (B) up to \$20,000,000 of common warrants to purchase shares of Common Stock accompanying the Shares and/or Pre-Funded Warrants (each a "**Common Warrant**," and each share of Common Stock underlying a Common Warrant, a "**Common Warrant Share**"), and the issuance of \$375,000 of underwriter warrants to purchase shares of Common Stock (each an "**Underwriter Warrant**," and each share of Common Stock underlying an Underwriter Warrant, an "**Underwriter Warrant Share**") issuable to the underwriters in the offering. The Shares, Pre-Funded Warrants, Common Warrants and Underwriter Warrants are to be sold by the Company pursuant to an underwriting agreement (the "**Underwriting Agreement**") to be entered into between the Company and the representatives of the several underwriters named therein. This opinion is being rendered in connection with the filing of the Registration Statement with the Commission.

In connection with this opinion, we have examined originals or copies (certified or otherwise identified to our satisfaction) of (i) the Company's Certificate of Incorporation as currently in effect, (ii) the Company's Bylaws as currently in effect, (iii) the Registration Statement and related Prospectus, (iv) the form of Underwriting Agreement, (v) the form of Pre-Funded Warrant, (vi) the form of Common Warrant, (vii) the form of Underwriter Warrant and (viii) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials or of officers and representatives of the Company, as we have deemed relevant and necessary as a basis for the opinion hereinafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed or photostatic copies, and the authenticity of the originals of such latter documents. As to certain questions of fact material to this opinion, we have relied upon certificates or comparable documents of officers and representatives of the Company and have not sought to independently verify such facts.

Based on the foregoing, and subject to the assumptions, limitations and qualifications stated herein, we are of the opinion that (i) the Shares, when issued and sold as contemplated in the Registration Statement and the related Prospectus, and upon payment and delivery in accordance with the Underwriting Agreement, will be validly issued, fully paid and non-assessable, (ii) when the Pre-Funded Warrants are duly executed and delivered by the Company and paid for by the underwriters in accordance with the terms of the Underwriting Agreement, such Pre-Funded Warrants will constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with their terms, subject to bankruptcy, insolvency or other similar laws affecting creditors' rights and to general equitable principles, (iii) when the Common Warrants are duly executed and delivered by the Company and paid for by the underwriters in accordance with the terms of the Underwriting Agreement, such Common Warrants will constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with their terms, subject to bankruptcy, insolvency or other similar laws affecting creditors' rights and to general equitable principles, (iv) when the Underwriter Warrants are duly executed and delivered by the Company in accordance with the terms of the Underwriting Agreement, such Underwriter Warrants will constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with their terms, subject to bankruptcy, insolvency or other similar laws affecting creditors' rights and to general equitable principles, (v) the Pre-Funded Warrant Shares have been duly authorized and, when issued upon the due exercise of the Pre-Funded Warrants, will be validly issued, fully paid and non-assessable, (vi) the Common Warrant Shares have been duly authorized and, when issued upon the due exercise of the Common Warrants, will be validly issued, fully paid and non-assessable, and (vii) the Underwriter Warrant Shares have been duly authorized and, when issued upon the due exercise of the Underwriter Warrants, will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the General Corporation Law of the State of Delaware (including reported judicial decisions interpreting the General Corporation Law of the State of Delaware) and, with respect to the enforceability of the Pre-Funded Warrants and the Underwriter Warrants, the laws of the State of New York, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdiction.

We hereby consent to the filing of this letter as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Prospectus which is a part of the Registration Statement. In giving such consents, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Commission promulgated thereunder.

Very truly yours,

*/s/Lowenstein Sandler LLP*

Lowenstein Sandler LLP

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**Consent of Independent Registered Public Accounting Firm**

We consent to the use of our report dated December 15, 2022, with respect to the consolidated financial statements of Sonnet BioTherapeutics Holdings, Inc., incorporated herein by reference, and to the reference to our firm under the heading “Experts” in the prospectus.

*/s/ KPMG LLP*

Philadelphia, Pennsylvania  
October 4, 2023

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## Calculation of Filing Fee Tables

Form S-1  
(Form Type)Sonnet BioTherapeutics Holdings, Inc.  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price(1)	Fee Rate	Amount of Registration Fee
<b>Fees to Be Paid</b>	Equity	Common Stock, \$0.0001 par value per share <sup>(2)</sup>	457(o)			\$ 10,000,000	0.0001476	1,476.00
<b>Fees to Be Paid</b>	Equity	Pre-Funded Warrants <sup>(3)</sup>	457(g)					(4)
<b>Fees to Be Paid</b>	Equity	Common Warrants <sup>(3)</sup>	457(g)					(4)
<b>Fees to Be Paid</b>	Equity	Underwriter Warrants	457(g)					(4)
<b>Fees to Be Paid</b>	Equity	Common Stock underlying Pre-Funded Warrants <sup>(2)(3)</sup>	457(o)			(3)	0.0001476	(3)
<b>Fees to Be Paid</b>	Equity	Common Stock underlying Common Warrants <sup>(2)</sup>	457(o)			\$ 20,000,000	0.0001476	2,952.00
<b>Fees to Be Paid</b>	Equity	Common Stock underlying Underwriter Warrants <sup>(2)</sup>	457(o)			\$ 375,000	0.0001476	55.35
		<b>Total Fees Previously Paid</b>						<u>2,300.43</u>
		<b>Total Fee Offsets</b>						<u>\$ —</u>
		<b>Net Fee Due</b>						<u>\$ 2,182.92</u>

- (1) Estimated solely for the purpose of calculating the amount of the registration fee in pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the “Securities Act”).
- (2) Pursuant to Rule 416(a) under the Securities Act, this registration statement shall also cover an indeterminate number of shares that may be issued and resold resulting from stock splits, stock dividends or similar transactions.
- (3) The proposed maximum aggregate offering price of the common stock will be reduced on a dollar-for-dollar basis based on the offering price of any pre-funded warrants issued in the offering, and the proposed maximum aggregate offering price of the pre-funded warrants to be issued in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any common stock issued in the offering. Accordingly, the proposed maximum aggregate offering price of the common stock, pre-funded warrants and accompanying common warrants (including the common stock issuable upon exercise of the pre-funded warrants), if any, is \$10,000,000.
- (4) No separate registration fee is payable pursuant to Rule 457(g) under the Securities Act.