

PROSPECTUS



**33,193,485 Shares of Common Stock**  
**Pre-Funded Warrants to Purchase up to 2,100,632 Shares of Common Stock**  
**Common Warrants to Purchase up to 35,294,117 Shares of Common Stock**  
**Shares of Common Stock underlying the Pre-Funded Warrants and Common Warrants**

We are offering up to 33,193,485 shares of our common stock and common warrants to purchase an equal number of 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 pre-funded warrants to purchase 2,100,632 shares of common stock 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. Each pre-funded warrant will be exercisable for one share of our common stock and is accompanied by a common warrant to purchase 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 the 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 \$0.85 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. 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 August 19, 2021, the last reported sale price of our common stock on The Nasdaq Capital Market was \$1.22 per share.

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 for a listing of the pre-funded warrants or common warrants on any national securities exchange. Without an active trading market, the liquidity of the pre-funded warrants and common warrants will be limited.

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 the section entitled “Risk Factors” beginning on page 8 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.**

|  | Per Share | Per Pre-Funded<br>Warrant | Per Common<br>Warrant | Total(1)      |
|--|-----------|---------------------------|-----------------------|---------------|
| Public offering price                      | \$ 0.84   | \$ 0.8399                 | \$ 0.01               | \$ 29,999,789 |
| Underwriting discounts and commissions (2) | \$ 0.0504 | \$ 0.0504                 | \$ 0.0006             | \$ 1,800,000  |
| Proceeds to us, before expenses            | \$ 0.7896 | \$ 0.7895                 | \$ 0.0094             | \$ 28,199,789 |

(1) Reflects the issuance of 33,193,485 shares of our common stock and pre-funded warrants to purchase 2,100,632 shares of common stock.

(2) See “Underwriting” for additional information regarding underwriting compensation.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to an additional 5,294,117 shares of common stock and/or additional common warrants to purchase up to 5,294,117 shares of common stock from us, in any combination thereof, at the public offering price per share and public offering price per warrant, respectively, less the underwriting discounts and commissions.

The delivery of the shares of common stock and the pre-funded warrants and common warrants to purchasers is expected to be made on or about August 24, 2021.

**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.**

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*Sole Book-Running Manager*

**BTIG**

*Lead Manager*

**Chardan**

**The date of this prospectus is August 19, 2021.**

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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 “Sonnet Holdings,” “the Company,” “we,” “us” and “our” refer to Sonnet BioTherapeutics Holdings, Inc. and our consolidated subsidiaries.*

### Overview

Sonnet BioTherapeutics Holdings, Inc., 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<sup>TM</sup> (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.

Our current internal pipeline development activities are focused on cytokines, a class of cell signaling peptides that, among other important functions, serve as potent immunomodulatory agents. Working both independently and synergistically, specific cytokines have shown the ability to modulate the activation and maturation of immune cells that fight cancer and pathogens. However, because they do not preferentially accumulate in specific tissues and are quickly eliminated from the body, the conventional approach to achieving a treatment effect with cytokine therapy typically requires the administration of high and frequent doses. This can result in a reduced treatment effect accompanied by the potential for systemic toxicity, which poses challenges to the therapeutic application of this class of drugs.

Our lead proprietary asset, SON-1010, is a fully human version of Interleukin 12 (“IL-12”), covalently linked to the F<sub>H</sub>AB construct, for which we intend to pursue clinical development in solid tumor indications, including non-small cell lung cancer and head and neck cancer. Sonnet has completed a nonhuman primate (“NHP”) GLP toxicity study with SON-1010 and is preparing an Investigational New Drug (“IND”) application for submission to the FDA with the goal of initiating a Phase 1 clinical trial during the second half of 2021 and having initial top line clinical safety data available during the first half of 2022. The Company acquired the global development rights to our most advanced compound, a fully human version of Interleukin 6 (“IL-6”), in April 2020. Going forward, we will exclusively refer to this candidate as SON-080, for its target indications of Chemotherapy-Induced Peripheral Neuropathy (“CIPN”) and Diabetic Peripheral Neuropathy (“DPN”), the latter of which had previously been known as the SON-081 program. Sonnet intends to file an IND for a U.S. Phase 1b/2a pilot-scale efficacy study with SON-080 in CIPN during the second half of 2021 that could yield initial top line clinical safety data during the first half of 2022. Pursuant to a license agreement the Company entered with New Life in May 2021, we and New Life will be jointly responsible for leading the development program for SON-080 in DPN with the objective of initiating an ex-US Phase 1b/2a pilot-scale efficacy study during the second half of 2021 or first half of 2022 that could yield initial top line clinical safety data as early as the first half of 2022. Regarding our lead bispecific candidate, SON-1210, which combines Interleukins 12 and 15 (“IL-15”) covalently linked to the F<sub>H</sub>AB construct, we intend to file an IND to begin human clinic testing during the first half of 2022.

## Recent Developments

### *ATM Program*

On February 5, 2021, we entered into an at-the-market (“ATM”) sales agreement with BTIG, LLC (“BTIG”), acting in its capacity as the sales agent (the “Sales Agreement”). On June 14, 2021, we completed the issuance of shares available under the Sales Agreement, pursuant to which we had the ability to offer and sell, from time-to-time, through BTIG, shares of our common stock having an aggregate offering price of up to \$15,875,000. From February 5, 2021 through June 14, 2021, we sold an aggregate of 7,454,238 Shares for aggregate gross proceeds of \$15,874,999 and paid BTIG an aggregate of \$476,250 in commissions.

### *Patent Issuance*

On June 8, 2021, we announced that the United States Patent and Trademark Office has issued U.S. Patent No. 11,028,166 entitled, “Albumin Domain Fusion Proteins”. The patent covers our F<sub>H</sub>AB technology and includes therapeutic fusion proteins that utilize F<sub>H</sub>AB for tumor targeting and retention and provide extended pharmacokinetics (“PK”). The patent carries a term effective until March 2039, inclusive of the 399-day Patent Term Extension.

### *SON-1010 Non-Human Primate Toxicology Study*

On May 10, 2021, we announced that we completed a successful preclinical nonhuman primate (“NHP”) GLP repeat-dose study of SON-1010, a proprietary version of Interleukin 12 (“IL-12”) configured using our F<sub>H</sub>AB platform. The objectives of the study were to evaluate the toxicity of SON-1010 in NHP using a subcutaneous, repeat-dose regimen at three different dose levels versus untreated controls and to evaluate the potential reversibility of any adverse findings.

Study results included:

- The No Observed Adverse Event Level following repeated administration was more than 50 times the anticipated equivalent human clinical dose in NHP with no evidence of cytokine release syndrome.
- PK analysis of serum samples confirmed an enhanced profile of IL12-F<sub>H</sub>AB over recombinant human IL-12, with a half-life around 40 hours in NHPs.
- A significant increase in Interferon- $\gamma$ , a key pleiotropic cytokine associated with anti-tumor mechanisms, was observed following dosing with IL12-F<sub>H</sub>AB.
- SON-1010 related changes in clinical observations, body weight, clinical pathology, cytokines, and immunophenotyping were seen, all of which were consistent with on-target effects previously observed in nonhuman primates.
- By day 38 all study subjects recovered to baseline (pre-study) values.
- Repeat dosing administration was tolerated at all dose levels examined.

### *Out-Licensing Agreement with New Life Therapeutics*

On May 2, 2021, we entered into a License Agreement (the “Agreement”) with New Life Therapeutics PTE, LTD. (“New Life”). Pursuant to the Agreement, we granted New Life an exclusive license (with the right to sublicense) to develop and commercialize pharmaceutical preparations containing a specific recombinant human interleukin-6 (or any derivatives, fragments or conjugates thereof) (the “Compound”) (such preparations, the “Products”) for the prevention, treatment or palliation of diabetic peripheral neuropathy in humans (the “DPN Field”) in Malaysia, Singapore, Indonesia, Thailand, Philippines, Vietnam, Brunei, Myanmar, Lao PDR and Cambodia (the “Exclusive Territory”). New Life may exercise the option to expand (1) the field of the exclusive license to include the prevention, treatment or palliation of chemotherapy-induced peripheral neuropathy in humans (the “CIPN Field”), which option is non-exclusive and will expire on December 31, 2021; and/or (2) the territorial scope of the license to include the People’s Republic of China, Hong Kong and/or India (the “Expanded Territory”), which option is exclusive and will also expire on December 31, 2021. We are excluded from developing, using, selling or otherwise commercializing any Compounds or Products for use in the DPN Field in the Exclusive Territory during the term of the Agreement.

We retained all global rights to manufacture Compounds and Products. We and New Life shall enter into a follow-on development supply agreement and subsequent commercial supply agreement pursuant to which we shall supply to New Life Products for development and commercialization thereof in the DPN Field (and the CIPN Field, if applicable) in the Exclusive Territory (and the Expanded Territory, as applicable) on terms to be negotiated by the parties.

Pursuant to the terms of the Agreement, New Life will bear the cost of, and be responsible for, among other things, all costs associated with conducting clinical studies and additional non-clinical studies (if any, subject to both parties' approval), preparing and filing applications for regulatory approval and undertaking other developmental and regulatory activities for and commercializing Products in the DPN Field (and the CIPN Field, if applicable) in the Exclusive Territory (and the Expanded Territory, as applicable). We and New Life will co-own the clinical data resulting from the Phase 1b/2a study, and New Life will own and maintain all regulatory filings and approvals for Products in the Exclusive Territory (and the Expanded Territory, as applicable).

In consideration of the license and other rights granted by us, New Life paid us a \$500,000 upfront cash payment and is obligated to pay a deferred license fee of an additional \$1,000,000 at the time of the satisfaction of certain milestones as well as potential additional milestone payments to us totaling up to \$19,000,000 subject to the achievement of certain development and commercialization milestones. In addition, during the Royalty Term (as defined below), New Life is obligated to pay us double digit tiered royalties ranging from 12% to 30% based on annual net sales of Products in the Territory. The "Royalty Term" means, on a Product-by-Product and a country-by-country basis in the Exclusive Territory, the period commencing on the date of the first commercial sale (subject to certain conditions) of such Product in such country in the Exclusive Territory (and the Expanded Territory, as applicable) and continuing until New Life ceases commercialization of such Product in the DPN Field (or CIPN Field, if applicable). In the event New Life (i) files for an initial public offering or (ii) is subject to a Change of Control, the royalty obligations may be converted to equity subject to mutual agreement of the parties.

In addition, New Life shall pay to us a percentage, in the double digits, of all revenue received through sub-licensing of each Product, subject to certain exclusions.

We retained the sole responsibility to pay our third-party licensors to the extent such obligations are applicable to the rights granted to New Life with respect to the Products and shall remain liable for all obligations under the license related to the Compounds and Products between us and ARES Trading SA.

The Agreement will remain in effect on a Product-by-Product, country-by-country basis and will expire upon the expiration of the Royalty Term for the last-to-expire Product in the last-to-expire country, subject to (i) each party's early termination rights including for material breach or insolvency or bankruptcy of the other party and (ii) our Buy Back Right and New Life's Give Back Right (as defined below).

In addition, New Life granted to us an exclusive option to buy back the rights granted by us to New Life and we granted New Life the right to give back the rights with respect to Products in the DPN Field and/or the CIPN Field (if applicable) in one or more countries in the Exclusive Territory (and the Expanded Territory, as applicable) on terms to be agreed upon, which options will expire upon the initiation of a Phase III Trial for the applicable Product.

### **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"), pursuant to which Merger Sub merged with and into Sonnet, with Sonnet surviving as a wholly owned subsidiary of us (the "Merger"). In connection with, and immediately prior to the completion of the Merger, we effected a reverse stock split of our common stock, at a ratio of 1-for-26. 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.

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. 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. You should not rely on any such information in making your decision whether to purchase our common stock.

This prospectus and the information incorporated by reference into this prospectus contain references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus and the information incorporated by reference into this prospectus, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other company.

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## **THE OFFERING**

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| <b>Common Stock Offered by Us</b>        | 33,193,485 shares (or 38,487,602 shares if the underwriters' option to purchase additional shares is exercised in full).   |
| <b>Pre-funded Warrants Offered by Us</b> | We are also offering pre-funded warrants to purchase 2,100,632 shares of common stock 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. 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 the pre-funded warrants sold in this offering. |
| <b>Common Warrants Offered by Us</b>     | Common warrants to purchase an aggregate of 35,294,117 shares of our common stock (or 40,588,234 shares if the underwriters' option to purchase additional common warrants is exercised in full). 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 \$0.85 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)** 58,150,372 shares (or 63,444,489 shares if the underwriters' option to purchase additional shares is exercised in full), assuming in each case none of the pre-funded warrants or the common warrants issued in this offering are exercised. Assuming all of the pre-funded warrants were immediately exercised, there would be 60,251,004 shares of our common stock outstanding after this offering (or 65,545,121 shares if the underwriters' option to purchase additional shares is exercised in full).

**Option to Purchase Additional Securities** We have granted the underwriters an option, exercisable within 30 days after the closing of this offering, to acquire up to an additional 5,294,117 shares of common stock and/or additional common warrants to purchase up to 5,294,117 shares of common stock from us, in any combination thereof, at the public offering price per share and public offering price per warrant, respectively, less underwriting discounts and commissions on the same terms as set forth in this prospectus.

**Use of Proceeds** We estimate that the net proceeds from this offering will be approximately \$27.4 million, or \$31.6 million if the underwriters exercise their option to purchase additional securities in full, 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 pre-funded warrants or 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.

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**Risk Factors** An investment in our securities involves a high degree of risk. See "Risk Factors" beginning on page 8 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." Additionally, 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 and 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 24,956,887 shares of common stock outstanding as of August 10, 2021, and assumes the sale and issuance by us of 33,193,485 shares of common stock (or 38,487,602 shares if the underwriters' option to purchase additional shares is exercised in full) and pre-funded warrants to purchase 2,100,632 shares of common stock in this offering and excludes:

- 363,268 shares of common stock underlying unvested restricted stock units outstanding as of August 10, 2021;
- 640,029 shares of common stock reserved for future issuance under the 2020 Omnibus Equity Incentive Plan as of August 10, 2021;
- 11,495,408 shares of common stock issuable upon the exercise of warrants outstanding as of August 10, 2021, with a weighted average exercise price of \$3.55 per share;
- 2,100,632 shares of common stock issuable upon the exercise of the pre-funded warrants issued in this offering;
- 35,294,117 shares (or 40,588,234 shares if the underwriters' option to purchase additional common warrants is exercised in full) of common stock issuable upon the exercise of the common warrants issued in this offering; and
- 705,882 shares of common stock issuable upon the exercise of the underwriter warrants issued in this offering.

Unless otherwise indicated, this prospectus reflects and assumes no issuances or exercises of any other outstanding shares, options or warrants after August 10, 2021 and no exercise by the underwriters of their option to purchase additional shares.

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## 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 the combined public offering price of \$0.85 per share of common stock and accompanying common warrant and \$0.8499 per pre-funded warrant and accompanying common warrant being sold in this offering, and assuming that all of the pre-funded warrants to purchase 2,100,632 shares of our common stock were immediately exercised for cash at an exercise price of \$0.0001 per share, and our net tangible book value as of June 30, 2021, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$0.37 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 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 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.

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## USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$27.4 million from the sale of the securities offered by us in this offering, or approximately \$31.6 million if the underwriters exercise their option to purchase additional shares in full, 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 pre-funded warrants and the common warrants issued 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 “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.

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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, 2021 was \$1.4 million, or \$0.06 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, 2021.

After giving effect to the sale of 33,193,485 shares of common stock and pre-funded warrants to purchase up to 2,100,632 shares of common stock in this offering at the public offering price of \$0.85 per share of common stock and accompanying common warrant, and \$0.8499 per pre-funded warrant and accompanying common warrant, 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 the immediate full exercise for cash of the pre-funded warrants sold in this offering at an exercise price of \$0.0001 per share, our as adjusted net tangible book value as of June 30, 2021 would be \$28.8 million, or \$0.48 per share of common stock. This amount represents an immediate increase in net tangible book value of \$0.42 per share to our existing stockholders and an immediate dilution of \$0.37 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 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:

|  |    |      |      |
|--|----|------|------|
| Combined public offering price per share and accompanying common warrant           |    | \$   | 0.85 |
| Historical net tangible book value per share as of June 30, 2021                   | \$ | 0.06 |      |
| Increase in net tangible book value per share attributable to this offering        |    | 0.42 |      |
| As adjusted net tangible book value per share after giving effect to this offering |    |      | 0.48 |
| Dilution per share to new investors in this offering                               | \$ | 0.37 |      |

If the underwriters exercise their option to purchase additional shares in full, the as adjusted net tangible book value per share after giving effect to this offering would be \$0.50 per share, which amount represents an immediate increase in the net tangible book value of \$0.44 per share of our common stock to existing stockholders and an immediate

dilution in net tangible book value of \$0.35 per share of our common stock to new investors purchasing shares and accompanying common warrants in this offering.

The table and discussion above is based on 24,757,847 shares of common stock outstanding as of June 30, 2021 and excludes:

- 562,308 shares of common stock underlying unvested restricted stock units outstanding as of June 30, 2021;
- 640,029 shares of common stock reserved for future issuance under the 2020 Omnibus Equity Incentive Plan as of June 30, 2021; and
- 11,495,408 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2021, with a weighted average exercise price of \$3.55 per share.

The discussion and table above assume no exercise of the underwriters' option to purchase additional securities and no exercise of common warrants accompanying the shares of common stock and pre-funded warrants sold in this offering.

## DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of:

- 125,000,000 shares of common stock, par value \$0.0001 per share ("Common Stock"); 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 August 10, 2021, 24,956,887 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 and 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;

- 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, as amended, and Bylaws, as amended 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.

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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;
- 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) 33,193,485 shares of our common stock, (ii) pre-funded warrants to purchase 2,100,632 shares of our common stock and (iii) common warrants to purchase 35,294,117 shares of our common stock, plus up to an additional 5,294,117 shares and common warrants to purchase 5,294,117 shares of common stock subject to the underwriters’ option to purchase additional shares and/or common warrants. 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. 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 is 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.* 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 is 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 \$0.85. 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 the underwriters named below on August 19, 2021. BTIG, LLC (“BTIG” or the “representative”) is acting as the sole book-running manager and representative of the underwriters. The underwriting agreement provides for the purchase of a specific number of shares of common stock and pre-funded warrants and accompanying common warrants to purchase shares of common stock by the underwriters. Subject to the terms and conditions of the underwriting agreement, each underwriter has agreed to purchase the number of shares, pre-funded warrants and common warrants set forth opposite its name below:

|                              | <b>Number of Shares<br/>of<br/>Common Stock</b> | <b>Number of Pre-<br/>Funded<br/>Warrants</b> | <b>Number of<br/>Common<br/>Warrants</b> |
|------------------------------|---|---|--|
| BTIG, LLC                    | 24,895,114                                      | 1,575,474                                     | 26,470,588                               |
| Chardan Capital Markets, LLC | 8,298,371                                       | 525,158                                       | 8,823,529                                |
| <b>Total</b>                 | <b>33,193,485</b>                               | <b>2,100,632</b>                              | <b>35,294,117</b>                        |

The underwriters have agreed to purchase all of the shares of common stock, pre-funded warrants and accompanying common warrants offered by this prospectus, if any are purchased. We have also granted the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an aggregate of 5,294,117 additional shares of common stock and/or additional common warrants to purchase up to 5,294,117 shares of common stock from us, in any combination thereof, at the public offering price per share and public offering price per warrant, respectively, less the underwriting discounts and commissions.

The underwriters are offering the shares of common stock, pre-funded warrants and accompanying common warrants subject to various conditions and may reject all or part of any order. The representative has advised us that it proposes initially to offer the shares of common stock, 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 \$0.0306 per share and accompanying common warrant or \$0.0306 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 representative may change the offering price, the concession, and other selling terms at various times.

The following table provides information regarding the amount of the discounts and commissions to be paid to the underwriters by us, before expenses:

|  | <b>Per Share and<br/>Accompanying<br/>Common Warrant</b> | <b>Per<br/>Pre-Funded<br/>Warrant and<br/>Accompanying<br/>Common Warrant</b> | <b>Total Without<br/>Exercise of<br/>Option(1)</b> | <b>Total With Full<br/>Exercise of<br/>Option(1)</b> |
|--|--|---|--|--|
| Public offering price                      | \$ 0.8500  | \$ 0.8499   | \$ 29,999,789                                      | \$ 34,499,789  |
| Underwriting discounts and commissions (2) | \$ 0.0510  | \$ 0.0510   | \$ 1,800,000                                       | \$ 2,070,000   |
| Proceeds to us, before expenses            | \$ 0.7990  | \$ 0.7989   | \$ 28,199,789                                      | \$ 32,429,789  |

(1) Reflects the issuance of 33,193,485 shares of our common stock and pre-funded warrants to purchase 2,100,632 shares of common stock.

(2) We have agreed to pay the underwriters a commission of 6% of the gross proceeds of this offering.

We estimate that our total expenses of the offering, excluding the estimated underwriting discounts and commissions, the non-accountable expense allowance described below and the financial advisory fee described below, will be approximately \$500,000, which includes the fees and expenses for which we have agreed to reimburse the underwriters, in an aggregate amount not to exceed \$100,000. In addition, we have agreed (i) to pay the representative a non-accountable expense allowance equal to 1% of the gross proceeds of the offering (excluding the proceeds from the underwriters’ exercise of their option to purchase additional securities, if any) and (ii) to reimburse the representative for expenses related to background checks up to an aggregate of \$15,000.

We have also agreed to issue to the representative warrants (the “underwriter warrants”) to purchase 705,882 shares of common stock (representing 2% of the aggregate number of shares sold in this offering, including the number of shares of common stock underlying the pre-funded warrants, but excluding the underwriters’ option to purchase additional shares of common stock), at an exercise price of \$1.0625 per share (representing 125% of the public offering price for a share to be sold 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.

In addition, we have agreed to pay Chardan Capital Markets, LLC, one of the underwriters in the offering, a financial advisory fee of \$250,000.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

We, our officers and directors have agreed to a 90-day “lock-up” with respect to shares of our common stock and other of our securities that they beneficially own, including securities that are convertible into shares of common stock and securities that are exchangeable or exercisable for shares of common stock. This means that, subject to certain exceptions, for a period of 90 days following the date of this prospectus, we and such persons may not offer, sell, pledge or otherwise dispose of these securities without the prior written consent of the representative.

Rules of the SEC may limit the ability of the underwriters to bid for or purchase shares before the distribution of the shares is completed. However, the underwriters may engage in the following activities in accordance with the rules:

- Stabilizing transactions - the representative may make bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.

- Penalty bids - if the representative purchases shares in the open market in a stabilizing transaction or syndicate covering transaction, it may reclaim a selling concession from the underwriters and selling group members who sold those shares as part of this offering.

- Passive market making - market makers in the shares who are underwriters or prospective underwriters may make bids for or purchases of shares, subject to limitations, until the time, if ever, at which a stabilizing bid is made.

Similar to other purchase transactions, the underwriters’ purchases to cover the syndicate short sales or to stabilize the market price of our common stock may have the effect of raising or maintaining the market price of our common stock or preventing or mitigating a decline in the market price of our common stock. As a result, the price of the shares of our common stock may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of the shares if it discourages resales of the shares.

Neither we nor the underwriters makes any representation or prediction as to the effect that the transactions described above may have on the price of the shares. These

transactions may occur on The Nasdaq Capital Market or otherwise. If such transactions are commenced, they may be discontinued without notice at any time.

A prospectus in electronic format may be delivered to potential investors by the underwriters. The prospectus in electronic format will be identical to the paper version of such prospectus. Other than the prospectus in electronic format, the information on any underwriter's website and any information contained in any other website maintained by an underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part.

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.

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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 after the date of the initial registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement and 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, 2020, filed with the SEC on December 17, 2020;
- our Quarterly Reports on Form 10-Q for the quarters ended December 31, 2020, March 31, 2021 and June 30, 2021, filed with the SEC on February 16, 2021, May 17, 2021 and August 16, 2021, respectively;
- our Current Reports on Form 8-K filed with the SEC on April 3, 2020 (as amended by Form 8-K/A on June 26, 2020), May 18, 2020, February 5, 2021, March 30, 2021, April 1, 2021, May 3, 2021 (as amended by Form 8-K/A on May 3, 2021), May 21, 2021, June 8, 2021, June 14, 2021, July 15, 2021 and August 19, 2021 (other than any portions thereof deemed furnished and not filed);
- our definitive proxy statement on Schedule 14A filed with the SEC on May 25, 2021; and
- the description of our Common Stock contained in the prospectus, constituting part of our Registration Statement on Form S-1 (File No. 333-230857) filed with the SEC on April 15, 2019, and subsequently amended on May 28, 2019 and June 7, 2019.

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. DLA Piper LLP (US), New York, New York, 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, 2020 and 2019 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, 2020 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 adjustment that might result from the outcome of this uncertainty.

The financial statements of Relief Therapeutics SA as of and for the years ended December 31, 2019 and 2018 incorporated herein have been audited by Mazars SA, an independent public accounting firm, as stated in its report dated March 20, 2020, incorporated by reference herein, and have been so included in reliance upon such report and upon the authority of such firm as experts in accounting and auditing. The report on the financial statements of Relief Therapeutics SA includes an explanatory paragraph about the existence of substantial doubt concerning its ability to continue as a going concern.

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**33,193,485 Shares of Common Stock**  
**Pre-Funded Warrants to Purchase 2,100,632 Shares of Common Stock**  
**Common Warrants to Purchase up to 35,294,117 Shares of Common Stock**  
**Shares of Common Stock underlying the Pre-Funded Warrants and Common Warrants**

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## PROSPECTUS

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*Sole Book-Running Manager*

**BTIG**

*Lead Manager*

**Chardan**

The date of this prospectus is August 19 , 2021.

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