

PROSPECTUS SUPPLEMENT  
(To prospectus dated May 11, 2021)



MyMD Pharmaceuticals, Inc.

**15,000 Shares of Preferred Stock  
6,651,885 Warrants to purchase an aggregate of 6,651,885 Shares of Common Stock  
(and the Shares of Common Stock issuable upon the conversion  
of such Preferred Stock and exercise of such Warrants)**

We are offering 15,000 shares of our newly-designated Series F Convertible Preferred Stock, without par value and with stated value equal to \$1,000 per share (the “Preferred Stock”) and 6,651,885 warrants, (the “Warrants”) to purchase an aggregate of 6,651,885 shares (the “Warrant Shares”) of our common stock, without par value (the “Common Stock”), to certain institutional investors pursuant to this prospectus supplement, the accompanying prospectus and a securities purchase agreement, dated February 21, 2023, by and between us and the investors signatory thereto (the “Securities Purchase Agreement”). The Preferred Stock is convertible into an aggregate of 6,651,885 shares of common stock (the “Conversion Shares”) at an initial conversion price of \$2.255 per share at any time after the original issuance date.

Each Warrant will have an initial exercise price of \$2.255 per share, will become exercisable on the date of issuance and will expire five years following the date of issuance. We are also registering the Conversion Shares and Warrant Shares (including such additional shares of Common Stock issuable upon anti-dilution adjustments), the additional shares of Common Stock that may be issuable as payment of dividends accrued on the Preferred Stock in shares of Common Stock and the additional shares of Common Stock that may be issued in connection with monthly installment conversions pursuant the certificate of designation of the Preferred Stock as further described in this prospectus.

Except to the extent effective stockholder approval has been obtained to comply with the applicable stockholder approval rules and regulations of the Nasdaq Stock Market, the Preferred Stock and Warrants being offered by this prospectus supplement and the accompanying prospectus will not be convertible into shares of Common Stock in excess of 7,890,054 shares of Common Stock in the aggregate (the “Issuable Maximum”), which amount equals 19.99% of the shares of Common Stock outstanding as of February 17, 2023, the date prior to the date of this prospectus supplement and the accompanying prospectus. Any conversions of Preferred Stock will be processed on a pro rata basis. See “Description of Securities—Series F Convertible Preferred Stock” for additional information.

We have engaged Katalyst Securities LLC (“Katalyst”) as our non-exclusive placement agent in connection with this offering. Katalyst has agreed to use its reasonable best efforts to sell the securities offered by this prospectus supplement and the accompanying prospectus. Katalyst is not purchasing or selling any shares offered by this prospectus supplement and the accompanying prospectus. We have agreed to pay Katalyst the fees set forth in the table below in connection with this offering, which assumes that we sell all of the securities we are offering hereby. See “Plan of Distribution” beginning on page S-19 of this prospectus supplement for more information regarding these arrangements.

Our Common Stock is traded on The Nasdaq Capital Market under the symbol “MYMD.” On February 17, 2023, the closing sale price of our Common Stock on The Nasdaq Capital Market was \$2.05 per share. There is no established public trading market for the Preferred Stock and the Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing the Preferred Stock or the Warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the Preferred Stock and the Warrants will be limited.

**This investment involves a high degree of risk. See “Risk Factors” on page S-5 of this prospectus supplement and any similar section contained in the accompanying prospectus and in the documents that are incorporated by reference herein and therein.**

	Per Share of Preferred Stock and Accompanying Warrant		Total
Offering Price	\$	1,000	\$ 15,000,000
Placement Agent Fees(1)	\$	60	\$ 900,000
Proceeds, before expenses, to us	\$	940	\$ 14,100,000

(1) We will pay the placement agent a cash fee equal to 6% of the proceeds in this offering and pay certain expenses of the placement agent in connection with this offering. See “Plan of Distribution” for additional disclosure regarding the placement agent’s compensation.

Delivery of the shares of Preferred Stock and Warrants to investors is expected to occur on or about February 23, 2023, subject to satisfaction of customary closing conditions.

**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.**

**Katalyst Securities LLC**

The date of this prospectus supplement is February 21, 2023.

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of the registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer only to the “prospectus,” we are referring to both parts combined. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the section of this prospectus supplement and the accompanying prospectus entitled “Incorporation by Reference” and “Where You Can Find More Information” as well as any free writing prospectus provided in connection with this offering.

You should rely only on this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering and the information incorporated or deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering. If anyone provides you with different or inconsistent information, you should not rely on it. We are not offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering is accurate as of any date other than as of the date of this prospectus supplement, the accompanying prospectus, or such free writing prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

Unless the context otherwise indicates, references in this prospectus to “MyMD”, “we”, “our”, “us” and “the Company” refer, collectively, to MyMD Pharmaceuticals, Inc. and its subsidiaries.

**No action is being taken in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering in that jurisdiction. Persons who come into possession of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering applicable to that jurisdiction. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.**

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents that we incorporate by reference herein and therein, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but are not always, made through the use of words or phrases such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “target,” “will,” “would,” and similar expressions, or the negative of these terms. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus supplement and the accompanying prospectus, and in particular those factors referenced in the sections entitled “Risk Factors.”

This prospectus supplement and the accompanying prospectus contain forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. These statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. We have included important factors in the cautionary statements included in this prospectus supplement and the accompanying prospectus and the documents we incorporate by reference herein and therein that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. No forward-looking statement is a guarantee of future performance.

You should read this prospectus supplement and the accompanying prospectus and the documents that we incorporate by reference herein and therein completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements in this prospectus supplement and the accompanying prospectus and the documents we incorporate by reference herein and therein represent our views as of the date of this prospectus supplement. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus supplement.

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## PROSPECTUS SUPPLEMENT SUMMARY

*The following summary of our business highlights some of the information contained elsewhere in, or incorporated by reference into, this prospectus supplement. Because this is only a summary, however, it does not contain all of the information that may be important to you. You should carefully read this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein, which are described under "Incorporation of Certain Information by Reference" in this prospectus supplement. You should also carefully consider the matters discussed in the section of this prospectus supplement entitled "Risk Factors" and under similar sections of the accompanying prospectus and other periodic reports incorporated herein and therein by reference. See information set forth under the section "Special Note Regarding Forward-Looking Statements."*

### Overview

MyMD is a clinical stage pharmaceutical company committed to developing novel therapies for autoimmune and inflammatory conditions, focused on developing and commercializing two therapeutic platforms based on well-defined therapeutic targets, MYMD-1 and Supera-CBD:

- MYMD-1 is a clinical stage small molecule that regulates the immunometabolic system to treat autoimmune disease, including (but not limited to) multiple sclerosis, diabetes, rheumatoid arthritis, and inflammatory bowel disease. MYMD-1 is being developed to treat age-related illnesses such as frailty and sarcopenia. MYMD-1 works by regulating the release of numerous pro-inflammatory cytokines, such as TNF- $\alpha$ , interleukin 6 ("IL-6") and interleukin 17 ("IL-17")
- Supera-CBD is a synthetic analog of CBD being developed to treat various conditions, including, but not limited to, epilepsy, pain and anxiety/depression, through its effects on the CB2 receptor, opioid receptors and monoamine oxidase enzyme ("MAO") type B.

### Special Meeting of the Stockholders

Promptly after the closing of this offering, but not later than June 15, 2023, we will call a special meeting of our stockholders (the "Special Meeting"), to seek stockholder approval (the "Stockholder Approval") of (1) the issuance by the Company of all securities to be issued pursuant to the Securities Purchase Agreement, including the Conversion Shares and the Warrant Shares, in compliance with the rules of the Nasdaq Stock Market (the "Transaction Proposal") and (2) an amendment to our amended and restated certificate of incorporation to modify the threshold required to achieve a quorum at future meetings of the Company's stockholders (the "Charter Amendment"). The approval of each of the Transaction Proposal and the Charter Amendment requires a majority of the votes cast at the Special Meeting by the holders of shares entitled to vote on such proposal. The holders of Common Stock have the right to cast one (1) vote per share of Common Stock on each proposal and the holder of our Series D Preferred Stock has the right to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series D Preferred Stock held by such holder are convertible. The holders of the shares of Preferred Stock purchased in this offering will not be entitled to vote at the Special Meeting.

### Company Information

MyMD Pharmaceuticals, Inc. is a New Jersey corporation with its principal business office at 855 N. Wolfe Street, Suite 601, Baltimore, MD 21205. Our telephone number is (856) 848-8698 and our website can be found at [www.mymd.com](http://www.mymd.com). Through our website, we will make available, free of charge, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission, or SEC. Information contained on, or that can be accessed through, our website is not and shall not be deemed to be a part of this prospectus.

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## THE OFFERING

Issuer	MyMD Pharmaceuticals, Inc.
Preferred Stock offered by us	15,000 shares of Preferred Stock, each initially convertible into 443.459 shares of Common Stock, for an aggregate of 6,651,885 shares of Common Stock, upon conversion of the Preferred Stock.

Series F Convertible Preferred Stock	The Preferred Stock will be convertible into shares of our Common Stock (subject to adjustment as provided in the certificate of designation of the Preferred Stock) at any time at the option of the holder, at an initial stated value of \$1,000 per share of Preferred Stock and a conversion price of \$2.255, up to the Issuable Maximum, with any conversions of Preferred Stock to be processed on a pro rata basis. The conversion price is subject to customary adjustments for stock dividends, stock splits, reclassifications and the like, and subject to price-based adjustment in the event of any issuances of Common Stock, or securities convertible, exercisable or exchangeable for Common Stock, at a price below the then-applicable Conversion Price (subject to certain exceptions). The holders of the Preferred Shares will be entitled to dividends of 10% per annum, compounded monthly, which will be payable in cash or shares of Common Stock at the Company's option, in accordance with the terms of the Certificate of Designations. Upon the occurrence and during the continuance of a Triggering Event (as defined in the Certificate of Designation), the Preferred Shares will accrue dividends at the rate of 15% per annum. Upon conversion or redemption, the holders of the Preferred Shares are also entitled to receive a dividend make-whole payment. See "Description of Securities—Series F Convertible Preferred Stock" for a discussion of the terms of the Preferred Stock and additional information.
Installment Redemption/Conversion	The Company will be required to redeem the Preferred Shares in 12 equal monthly installments, commencing on July 1, 2023. The amortization payments due upon such redemption are payable, at the company's election, in cash, or subject to certain limitations, in shares of Common Stock valued at the lower of (i) the Conversion Price then in effect and (ii) the greater of (A) 80% of the average of the three lowest closing prices of the Company's Common Stock during the thirty trading day period immediately prior to the date the amortization payment is due or (B) the Floor Price (as defined below). The "Floor Price" means the lower of (x) \$0.4014 and (y) 20% of the "Minimum Price" (as defined in Rule 5635 of the Rules of the Nasdaq Stock Market) on the date of the Stockholder Approval (subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or other similar events) or, in any case, such lower amount as permitted, from time to time, by the Nasdaq Stock Market. The Company may require holders to convert their Preferred Shares into Conversion Shares if the closing price of the Common Stock exceeds \$6.765 per share (subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or other similar events) for 20 consecutive trading days and the daily dollar trading volume of the Common Stock exceeds \$3,000,000 per day during the same period and certain equity conditions described in the certificate of designations are satisfied.

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Warrants offered by us	We are offering Warrants to purchase up to an aggregate of 6,651,885 shares of Common Stock. Each Warrant will have an exercise price of \$2.255, will become exercisable on the date of issuance, and will expire 5 years following the date of issuance. The exercise price is subject to customary adjustments for stock dividends, stock splits, reclassifications and the like, and subject to price-based adjustment, on a "full ratchet" basis, in the event of any issuances of Common Stock, or securities convertible, exercisable or exchangeable for Common Stock, at a price below the then-applicable exercise price (subject to certain exceptions).
Shares of Common Stock to be outstanding after this offering	46,121,894 shares (assuming the issuance of all of the Conversion Shares upon the conversion of the Preferred Stock at the initial conversion price of \$2.255 per share, but not assuming the exercise of the Warrants)
Offering price	\$1,000 per share of Preferred Stock and accompanying Warrant
Use of proceeds	We expect to receive net proceeds from this offering of approximately \$14.1 million after deducting the placement agent fees and other offering expenses payable by us.  We intend to use the net proceeds from this offering for working capital and general corporate purposes. See "Use of Proceeds" on page S-11.
Risk factors	See the "Risk Factors" section of this prospectus supplement and in the documents incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to invest in our securities.

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Nasdaq	Our common stock is listed on Nasdaq under the symbol "MYMD." There is no established public trading market for the Preferred Stock and the Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing the Preferred Stock and the Warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the Preferred Stock and the Warrants will be limited.
The number of shares of our Common Stock that will be outstanding immediately after this offering as shown above is based on 39,470,009 shares outstanding as of February 21, 2023. The number of shares outstanding as of February 21, 2023, as used throughout this prospectus supplement, unless otherwise indicated, excludes:	
<ul style="list-style-type: none"> <li>• 4,276,737 shares of Common Stock issuable upon the exercise of vested stock options outstanding at a weighted average exercise price of \$2.61 per share and 100,000 shares of Common Stock issuable upon the exercise of unvested stock options outstanding at a weighted average exercise price of \$3.96;</li> <li>• 6,514,827 shares of Common Stock issuable upon exercise of outstanding Common Stock purchase warrants with a weighted average exercise price of \$4.93 per share (other than with respect to the warrants below);</li> </ul>	

- 135,135 shares of Common Stock issuable upon exercise of prefunded warrants with a weighted average exercise price of \$0.00;
- 317,233 shares of Common Stock issuable upon exercise of vested restricted stock units with a weighted average date of grant price of \$5.03 per share and 2,795,000 shares of Common Stock issuable upon the exercise of unvested restricted stock units with a weighted average date of grant price of \$8.09;
- 4,377,748 shares of Common Stock reserved for future issuance under the Company's long-term incentive plans;
- 36,496 shares of Common Stock issuable upon conversion of 72,992 shares of our Series D Preferred Convertible Stock with a weighted average conversion price of \$0.01 per share; and
- 27,500 shares of Common Stock issuable upon exercise of outstanding warrants to purchase Series C Preferred Stock Common Stock purchase warrants with a weighted average exercise price of \$8.00 per share.

Except as otherwise indicated, the information in this prospectus supplement is as of February 21, 2023 and assumes no exercise of the warrants or options described above or vesting of restricted stock units described above. In addition, the information in this prospectus supplement assumes no exercise of the Warrants to be issued to the purchasers in this offering and no payment of any dividends due to the holders of Preferred Stock in the form of Common Stock.

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## RISK FACTORS

*Investing in our securities involves a high degree of risk. In addition to the other information contained in this prospectus supplement to the accompanying prospectus and in the documents we incorporate by reference, you should carefully consider the risks discussed below and under the heading "Risk Factors" in our most recent annual report on Form 10-K and the subsequent quarterly reports on Form 10-Q and other reports that we file with the SEC which are on file with the SEC and are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties discussed below and in the documents incorporated herein by reference are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our Common Stock could decline and you could lose part or all of your investment.*

### **Risk Factors Related to this Offering and Our Common Stock**

***If you purchase securities in this offering, assuming conversion of the Preferred Stock into shares of our Common Stock, you will suffer immediate dilution of your investment.***

The effective price per share of common stock issuable upon conversion of the Preferred Stock is substantially higher than the net tangible book value per share of our Common Stock outstanding prior to this offering. Therefore, if you purchase securities in this offering, you will pay a price per share of our Common Stock, assuming conversion of the Preferred Stock into shares of our Common Stock, that substantially exceeds our net tangible book value per share after giving effect to this offering. After giving effect to the sale by us of 15,000 shares of Preferred Stock covered by this prospectus at \$1,000 per share of Preferred Stock and associated Warrant, and deducting estimated placement agent fees and other estimated offering expenses payable by us and assuming conversion of the Preferred Stock into shares of our Common Stock at the initial conversion price of \$2.255 per share of Common Stock, you will experience immediate dilution of \$1.7383 per share of Common Stock, representing the difference between our as adjusted net tangible book value per share of Common Stock as of September 30, 2022, and the conversion price of the Preferred Stock. Furthermore, if any of our outstanding options or warrants are exercised at prices below the offering price, or if we grant additional options or other awards under our equity incentive plans or issue additional warrants, you may experience further dilution of your investment. See the section entitled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

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***The certificate of designation for the Preferred Stock contains anti-dilution provisions that may result in the reduction of the conversion price in the future. This feature may result in an indeterminate number of shares of Common Stock being issued upon conversion of the Preferred Stock. Sales of these shares will dilute the interests of other security holders and may depress the price of our Common Stock and make it difficult for us to raise additional capital.***

The certificate of designation for our Preferred Stock contains anti-dilution provisions, which provisions require the lowering of the applicable conversion price, as then in effect, to the purchase price of equity or equity-linked securities issued in subsequent offerings. If in the future, while any of our Preferred Stock is outstanding, we issue securities at an effective Common Stock purchase price of less than the applicable conversion price of our Preferred Stock, as then in effect, we will be required, subject to certain limitations and adjustments as provided in the respective certificate of designation for the Preferred Stock, to further reduce the relevant conversion price, which will result in a greater number of shares of Common Stock being issuable upon conversion of the Preferred Stock, which in turn will have a greater dilutive effect on our shareholders. In addition, as there is no floor price on the conversion price, we cannot determine the total number of shares issuable upon conversion. As such, it is possible that we will not have a sufficient number of available shares to satisfy the conversion of the Preferred Stock if we enter into a future transaction that reduces the applicable conversion price. If we do not have a sufficient number of available shares for any Preferred Stock conversions, we will be required to increase our authorized shares, which may not be possible and will be time consuming and expensive. In addition, we may be required to redeem a portion of the outstanding shares of Preferred Stock for less than the initial conversion price pursuant to an amortization payment in the event that 80% of the average of the three lowest closing prices of the Company's Common Stock during the thirty trading day period immediately prior to the date the amortization payment is due is less than the then-applicable conversion price. If this condition becomes true then we will be required to issue more Conversion Shares than initially anticipated. The potential for such additional issuances may depress the price of our Common Stock regardless of our business performance. We may find it more difficult to raise additional equity capital while any of our Preferred Stock is outstanding.

***The Preferred Stock provides for the payment of dividends in cash or in shares of our Common Stock, and we may not be permitted to pay such dividends in cash, which will require us to have shares of Common Stock available to pay the dividends.***

Each share of the Preferred Stock is entitled to receive cumulative dividends at the rate per share of 10% per annum of the stated value per share. The dividends are payable, at our discretion, in cash, out of any funds legally available for such purpose, or in pay-in-kind shares of Common Stock calculated based on the conversion price, subject to adjustment as provided in the certificate of designation for the Preferred Stock. The conversion price is subject to reduction if in the future we issue securities for less than the conversion price of our Preferred Stock, as then in effect. As there is no floor price on the conversion price, we cannot determine the total number of shares issuable upon conversion or in connection with the dividend. As such, it is possible that we will not have a sufficient number of available shares to pay the dividend in Common Stock, which would require the payment of the dividend in cash. We will not be permitted to pay the dividend in cash unless we are legally permitted to do so under New Jersey law. As such, we may rely on having available shares of Common Stock to pay such dividends, which will result in dilution to our shareholders. If we do not have such available shares, we may not be able to satisfy our dividend obligations.

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***You may experience future dilution as a result of future equity offerings and other issuances of our securities. In addition, this offering and future equity offerings and other issuances of our Common Stock or other securities may adversely affect the price of our Common Stock.***

In order to raise additional capital, we may in the future offer additional shares of Common Stock or other securities convertible into or exchangeable for our Common Stock prices that may not be the same as the price per share in this offering. We may not 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. The price per share at which we sell additional shares of Common Stock or securities convertible into shares of Common Stock in future transactions may be higher or lower than the price per share in this offering. You will incur dilution upon exercise of any outstanding stock options, warrants or upon the issuance of shares of Common Stock under our stock incentive programs. In addition, the sale of securities convertible into or exchangeable for shares of Common Stock in this offering and any future sales of a substantial number of shares of Common Stock in the public market, or the perception that such sales may occur, could adversely affect the price of our Common Stock. We cannot predict the effect, if any, that market sales of those shares of Common Stock or the availability of those shares for sale will have on the market price of our Common Stock.

***Because we will have broad discretion and flexibility in how the net proceeds from this offering are used, we may use the net proceeds in ways in which you disagree.***

We intend to use the net proceeds from this offering for working capital and other general corporate purposes. See “Use of Proceeds” on page S-11. Our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

***The Preferred Stock and Warrants are not listed for trading on any exchange, so the ability to trade the shares of Preferred Stock and Warrants is limited.***

There is no established public trading market for the Preferred Stock and Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing the Preferred Stock or Warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the Preferred Stock and Warrants will be limited.

***We expect to require additional capital in the future in order to develop our products, fund operations, and otherwise implement our business strategy. If we do not obtain any such additional financing, it may be difficult to effectively realize our long-term strategic goals and objectives.***

We anticipate that our expenses will increase significantly as we:

- advance the development of our MYMD-1 and Supera-CBD;
- initiate and continue research and preclinical and clinical development of potential new product candidates;

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- maintain, expand and protect our intellectual property as it pertains to MYMD-1 and Supera-CBD;
- expand our infrastructure and facilities to accommodate our growing employee base and ongoing development activities;
- establish agreements with contract research organizations, or CROs, and third-party contract manufacturing organizations, or CMOs, in connection with our Supera-CBD preclinical studies, MYMD-1 ongoing and planned clinical trials, Supera-CBD clinical trials and the development of our manufacturing capabilities for MYMD-1 and Supera-CBD;
- develop the large-scale manufacturing processes and capabilities for the commercialization of our MYMD-1 and Supera-CBD drug products;
- seek marketing approvals for our MYMD-1 and Supera-CBD product candidates that successfully complete clinical trials and
- establish a sales, marketing and distribution infrastructure to commercialize MYMD-1 and Supera-CBD should we obtain marketing approval

As a result of these anticipated expenditures, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. We will not generate revenue from product sales unless and until we successfully complete clinical development, obtain regulatory approval for, and successfully commercialize our MYMD-1 and Supera-CBD product candidates, and our current cash resources will not be sufficient to fund these activities. We are exploring additional ways to raise capital, but we cannot assure you that we will be able to raise capital. Our failure to raise capital as and when needed would have a material adverse impact on our financial condition, our ability to meet our obligations, and our ability to pursue our business strategies.

Any additional capital raised through the sale of equity or equity-backed securities may dilute our stockholders’ ownership percentages and could also result in a decrease in the market value of our equity securities.

The terms of any securities issued by us in future capital transactions may be more favorable to new investors, and may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have a further dilutive effect on the holders of any of our securities then outstanding.

In addition, we may incur substantial costs in pursuing future capital financing, including investment banking fees, legal fees, accounting fees, securities law compliance fees, printing and distribution expenses and other costs. We may also be required to recognize non-cash expenses in connection with certain securities we issue, such as convertible notes and warrants, which may adversely impact our financial condition.

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***Sales of a substantial number of shares of our Common Stock, or the perception that such sales may occur, may adversely impact the price of our Common Stock.***

Almost all of our 39,470,009 outstanding shares of Common Stock as of February 21, 2023, as well as a substantial number of shares of our Common Stock underlying outstanding options and warrants, are available for sale in the public market, either pursuant to Rule 144 under the Securities Act, or an effective registration statement. We are generally not restricted from issuing additional Common Stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, Common Stock. Pursuant to the shelf registration statement on Form S-3 filed on March 21, 2021, and amended on April 28, 2021, we may sell up to \$100,000,000 of our equity securities over the next several years, and approximately \$79,000,000 of our equity securities is available for sale under such registration statement after this offering. Sales of a substantial number of shares of our Common Stock in the public markets could depress the market price of our Common Stock and impair our ability to raise capital through the sale of additional equity securities. We cannot predict the effect that future sales of our Common Stock would have on the market price of our Common Stock.

***We do not anticipate paying dividends on our Common Stock in the foreseeable future.***

We currently plan to invest all available funds, including the proceeds from this offering, and future earnings, if any, in the development and growth of our business. We currently do not anticipate paying any cash dividends on our Common Stock in the foreseeable future. In addition, the terms of our existing and any future debt agreements may preclude us from paying dividends. As a result, a rise in the market price of our Common Stock, which is uncertain and unpredictable, will be your sole source of potential gain in the foreseeable future and you should not rely on an investment in our Common Stock for dividend income.

***Our stock price may be volatile.***

The market price of our Common Stock is likely to be highly volatile and could fluctuate widely in price in response to various factors, many of which are beyond our control, including the following:

- investors reacting negatively to the effect on our business and prospects from our 2021 merger transaction;
- the announcement of new products, new developments, services or technological innovations by us or our competitors;
- actual or anticipated quarterly increases or decreases in revenue, gross margin or earnings, and changes in our business, operations or prospects;
- announcements relating to strategic relationships, mergers, acquisitions, partnerships, collaborations, joint ventures, capital commitments, or other events by the us or our competitors;
- conditions or trends in the life sciences and biopharmaceutical industries;

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- changes in the economic performance or market valuations of other life sciences and biopharmaceutical companies;
- general market conditions or domestic or international macroeconomic and geopolitical factors unrelated to our performance or financial condition;
- sale of our Common Stock by stockholders, including executives and directors;
- volatility and limitations in trading volumes of our Common Stock;
- volatility in the market prices and trading volumes of the life sciences and biopharmaceutical stocks;
- our ability to finance our business;
- ability to secure resources and the necessary personnel to pursue our plans;
- failure to meet external expectations or management guidance;
- changes in our capital structure or dividend policy, future issuances of securities, sales or distributions of large blocks of Common Stock by stockholders;
- our cash position;
- announcements and events surrounding financing efforts, including debt and equity securities;
- analyst research reports, recommendations and changes in recommendations, price targets, and withdrawals of coverage;
- departures and additions of key personnel;
- disputes and litigation related to intellectual properties, proprietary rights, and contractual obligations;
- investigations by regulators into our operations or those of our competitors;
- changes in applicable laws, rules, regulations, or accounting practices and other dynamics; and
- other events or factors, many of which may be out of our control.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. The COVID-19 pandemic has resulted in significant financial market volatility and uncertainty in the recent past. These market fluctuations may also materially and adversely affect the market price of our Common Stock. As a result, you may be unable to resell your shares of our Common Stock at a desired price.

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#### **USE OF PROCEEDS**

We estimate that the net proceeds from the sale of the shares offered under this prospectus supplement, after deducting estimated offering expenses payable by us, will be approximately \$14.1 million, excluding the proceeds we may receive from the exercise of the Warrants.

We intend to use the net proceeds from the sale of the shares for working capital and general corporate purposes. The amounts and timing of our use of proceeds will vary depending on a number of factors, including the amount of cash generated or used by our operations. As a result, we will retain broad discretion in the allocation of the net proceeds of this offering.

#### **DIVIDEND POLICY**

We have never declared or paid any cash dividends on our Common Stock. We currently anticipate that we will retain future earnings to fund development and growth of our business, and we do not anticipate paying cash dividends in the foreseeable future. The decision to pay dividends is at the discretion of our board of directors and depends on our financial condition, results of operations, capital requirements, and other factors that our board of directors deems relevant.

## DILUTION

If you invest in our Common Stock, your ownership interest will be diluted by the difference between the price per share you pay and the net tangible book value per share of our Common Stock immediately after this offering.

Our net tangible book value as of September 30, 2022, was approximately \$9.7 million, or \$0.24 per share of our Common Stock, based upon 39,470,009 shares of our Common Stock outstanding as of that date. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our Common Stock outstanding as of September 30, 2022. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of Common Stock in this offering and the net tangible book value per share of our Common Stock immediately after this offering.

After giving effect to the sale of 15,000 shares of Preferred Stock in this offering at the stated value of \$1,000 per share and Warrants to purchase 6,651,885 shares of Common Stock sold in this offering, assuming the conversion of all shares of Preferred Stock into 6,651,885 Conversion Shares at the initial conversion price of \$2.255 per share of common stock and no exercise of any of the Warrants offered hereby, and after deducting the fees and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2022 would have been approximately \$23,832,565, or \$0.5167 per share. This represents an immediate increase in net tangible book value of \$0.2701 per share to existing stockholders and immediate dilution in net tangible book value of \$1.7383 per share to new investors.

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

Preferred Stock conversion price per share of common stock		\$	2.255
Historical net tangible book value per share of Common Stock as of September 30, 2022	\$	0.2466	
Increase in net tangible book value per share of Common Stock attributable to this offering	\$	0.2701	
As adjusted net tangible book value per share of Common Stock as of September 30, 2022, after giving effect to this offering		\$	0.5167
Dilution to new investors per share of Common Stock		\$	1.7383

The discussion and table above assume no exercise of the Warrants.

To the extent that outstanding options or warrants are exercised, you may experience further dilution. Also, if shares of Preferred Stock are converted to Common Stock at an effective conversion price that is less than the initial conversion price, pursuant to the anti-dilution provisions or other provisions in the certificate of designation of the Preferred Stock, then we will be required to issue more Conversion Shares than initially anticipated. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The above discussion and table are based upon 39,470,009 shares of Common Stock outstanding as of September 30, 2022 and, unless otherwise indicated, exclude:

- 4,276,737 shares of Common Stock issuable upon the exercise of vested stock options outstanding at a weighted average exercise price of \$2.61 per share and 100,000 shares of Common Stock issuable upon the exercise of unvested stock options at a weighted average exercise price of \$3.96;
- 6,522,461 shares of Common Stock issuable upon exercise of outstanding Common Stock purchase warrants with a weighted average exercise price of \$5.07 per share (other than with respect to the warrants below);
- 135,135 shares of Common Stock issuable upon exercise of prefunded warrants with a weighted average exercise price of \$0.00;
- 317,233 shares of Common Stock issuable upon exercise of vested restricted stock units with a weighted average date of grant price of \$5.03 per share and 2,795,000 shares of Common Stock issuable upon the exercise of unvested restricted stock units with a weighted average date of grant price of \$8.09;
- 4,377,748 shares of Common Stock reserved for future issuance under the Company's long-term incentive plans;
- 36,496 shares of Common Stock issuable upon conversion of 72,992 shares of our Series D Preferred Convertible Stock with a weighted average conversion price of \$0.01 per share; and
- 27,500 shares of Common Stock issuable upon exercise of outstanding warrants to purchase Series C Preferred Stock Common Stock purchase warrants with a weighted average exercise price of \$8.00 per share.

In addition, the information in this prospectus supplement assumes no exercise of the Warrants to be issued to the purchasers in this offering.

## DESCRIPTION OF SECURITIES

### Series F Convertible Preferred Stock

The Company is offering up to 15,000 shares of its Series F Convertible Preferred Stock in this offering, with a stated value of \$1,000 per share. The following are the principal terms of the Preferred Stock:

#### *Dividends*

The holders of the Preferred Stock will be entitled to dividends of 10.0% per annum, compounded monthly, which will be payable in cash or shares of Common Stock at the Company's option, in accordance with the terms of the certificate of designation of the Preferred Stock (the "Certificate of Designation"). Upon the occurrence and during the continuance of a Triggering Event (as defined in the Certificate of Designation), shares of Preferred Stock will accrue dividends at the rate of 15.0% per annum. Upon conversion or redemption, the holders of shares of Preferred Stock are also entitled to receive a dividend make-whole payment.

#### *Voting Rights*



The Preferred Stock has no voting rights, except as required by law (including without limitation, the New Jersey Business Corporation Act (the “BCA”)) and as expressly provided in the Certificate of Designation. To the extent that under the BCA the vote of the holders of shares of Preferred Stock, voting separately as a class or series, as applicable, is required to authorize a given action of the Company, the affirmative vote or consent of a majority of the outstanding shares of Preferred Stock, voting together in the aggregate and not in separate series unless required under the BCA, represented at a duly held meeting at which a quorum is presented or by written consent of such majority (except as otherwise may be required under the BCA) shall constitute the approval of such action by both the class or the series, as applicable. To the extent that under the BCA holders of shares of Preferred Stock are entitled to vote on a matter with holders of shares of Common Stock, voting together as one class, each share of Preferred Stock shall entitle the holder thereof to cast that number of votes per share as is equal to the number of shares of Common Stock into which it is then convertible (subject to certain beneficial ownership limitations) using the record date for determining the stockholders of the Company eligible to vote on such matters as the date as of which the Conversion Price is calculated.

#### *Liquidation*

Upon any liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, the each holder shares of the Preferred Stock shall be entitled to receive out of the assets, whether capital or surplus, of the Company an amount per share of Preferred Stock equal to the greater of (A) 125% of the stated value of such share of Preferred Stock (plus any applicable make-whole amount, unpaid late charge or other applicable amount) on the date of such payment and (B) the amount per share such holder would receive if such holder converted such share of Preferred Stock into Common Stock immediately prior to the date of such payment. All shares of capital stock of the Company shall be junior in rank to all shares of Preferred Stock with respect to the preferences as to payments upon the liquidation.

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#### *Conversion*

The Preferred Stock is convertible into shares of Common Stock (the “Conversion Shares”). The initial conversion price, subject to adjustment as set forth in the Certificate of Designation, is \$2.255 (the “Conversion Price”). The Conversion Price can be adjusted as set forth in the Certificate of Designation for stock dividends and stock splits or the occurrence of a fundamental transaction (as defined below). The Conversion Price is also subject to “full ratchet” price-based adjustment in the event of any issuances of Common Stock, or securities convertible, exercisable or exchangeable for Common Stock, at a price below the then-applicable Conversion Price (subject to certain exceptions). If any shares of Preferred Stock are converted or reacquired by us, such shares shall resume the status of authorized but unissued shares of preferred stock of the Company and shall no longer be designated as Preferred Stock.

The Company will be required to redeem the shares of Preferred Stock in 12 equal monthly installments, commencing on July 1, 2023. The amortization payments due upon such redemption are payable, at the company’s election, in cash, or subject to certain limitations, in shares of Common Stock valued at the lower of (i) the Conversion Price then in effect and (ii) the greater of (A) a 80% of the average of the three lowest closing prices of the Company’s Common Stock during the thirty trading day period immediately prior to the date the amortization payment is due or (B) the Floor Price (as defined below). For purposes of the Certificate of Designation, the “Floor Price” means the lower of (x) \$0.4014 and (y) 20% of the “Minimum Price” (as defined in Rule 5635 of the Rules of the Nasdaq Stock Market) on the date of the Stockholder Approval (subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or other similar events) or, in any case, such lower amount as permitted, from time to time, by the Nasdaq Stock Market; provided that if the amount set forth in clause B is the lowest effective price, the Company will be required to pay the amortization payment in cash.

#### *Exchange Cap*

The Preferred Stock will not be convertible into shares of Common Stock in excess of the Issuable Maximum except in the event that the Company (A) obtains the Stockholder Approval for issuances of shares of Common Stock in excess of the Issuable Maximum or (B) obtains a written opinion from outside counsel to the Company that such approval is not required. Until such approval or such written opinion is obtained, no holder of Preferred Stock shall be issued in the aggregate more shares of Common Stock than such holder’s pro rata share of the Issuable Maximum. In the event that after July 1, 2023, the Company has not obtained the Stockholder Approval or is not otherwise permitted to issue shares in excess of the Issuable Maximum, then a holder of Preferred Stock may elect to have his or her shares of Preferred Stock redeemed for cash.

#### *Optional Conversion*

The Preferred Stock can be converted at the option of the holder at any time and from time to time after the original issuance date. Holders shall effect conversions by providing us with the form of conversion notice (the “Notice of Conversion”) specifying the number of shares of Preferred Stock to be converted, the number of shares of Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable holder delivers by email such Notice of Conversion to us.

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#### *Mandatory Conversion*

If on any day after the issuance of the shares of Preferred Stock the closing price of the Common Stock has exceeded 300% of the Conversion Price per share (subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or other similar events) for 20 consecutive trading days and the daily dollar trading volume of the Common Stock has exceeded \$3,000,000 per trading day during the same period and certain equity conditions described in the Certificate of Designation are satisfied (the “Mandatory Conversion Date”), we shall deliver written notice of the Mandatory Conversion (as defined below) to all holders on the Mandatory Conversion Date and, on such Mandatory Conversion Date, we shall convert all of each holder’s shares of Preferred Stock into Conversion Shares at the then effective Conversion Price (the “Mandatory Conversion”). If any of the Equity Conditions shall cease to be satisfied at any time on or after the Mandatory Conversion Date through and including the actual delivery of all of the Conversion Shares to the holders, the Mandatory Conversion shall be deemed withdrawn and void ab initio.

#### *Beneficial Ownership Limitation*

The Preferred Stock cannot be converted to Common Stock if the holder and its affiliates would beneficially own more than 4.99% or 9.99% at the election of the holder of the outstanding Common Stock. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon notice to us, provided that any increase in this limitation will not be effective until 61 days after such notice from the holder to us and such increase or decrease will apply only to the holder providing such notice.

#### **Warrants**

The Company is also offering Warrants to purchase an aggregate of 6,651,885 shares of our Common Stock.

The following summary of certain terms and provisions of the Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Warrants, the form of which was filed as an exhibit to a Current Report on Form 8-K in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of Warrant for a complete description of the terms and conditions of the Warrants.

#### *Duration and Exercise Price*

Each Warrant offered hereby has an initial exercise price equal to \$2.255 per share of Common Stock. The Warrants will become exercisable on the date of issuance and will expire on the fifth anniversary of the original issuance date.

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#### *Exercisability*

The 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 such holder's 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 or decrease the amount of ownership of outstanding stock after exercising the holder's Warrants not in excess of 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 Warrants. Purchasers of Warrants in this offering may also elect prior to the issuance of the Warrants to have the initial exercise limitation set at 9.99% of our outstanding Common Stock.

#### *Adjustment to Exercise Price*

The exercise price and the number of shares of Common Stock purchasable upon the exercise of the Warrants are subject to adjustment upon the occurrence of specific events, including sales of additional shares of Common Stock, stock dividends, stock splits, and combinations of our Common Stock. The exercise price and the number of shares of Common Stock purchasable upon the exercise of the Warrants are also subject to price-based adjustment, on a "full ratchet" basis, in the event of any issuances of Common Stock, or securities convertible, exercisable or exchangeable for Common Stock, at a price below the then-applicable exercise price (subject to certain exceptions).

#### *Dividends or Distributions*

If we declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of our 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) at any time after the issuance of the Warrants, then, in each such case, the holders of the Warrants shall be entitled to participate in such distribution to the same extent that the holders would have participated therein if the holders had held the number of shares of Common Stock acquirable upon complete exercise of the Warrants.

#### *Cashless Exercise*

If, at the time a holder exercises its Warrants, a registration statement registering the issuance of the shares of Common Stock underlying the Warrants under the Securities Act is not then effective or 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 Warrants.

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#### *Fractional Shares*

No fractional shares of Common Stock will be issued upon the exercise of the Warrants. Rather, at our election, we will either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price or round up the number of shares of Common Stock to be issued to the nearest whole number.

#### *Transferability*

Subject to applicable laws, the Warrants may be offered for sale, sold, transferred or assigned upon surrender of the Warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable). There is currently no trading market for the Warrants.

#### *Exchange Listing*

There is no trading market available for the Warrants on any securities exchange or nationally recognized trading system. We do not intend to list the Warrants on any securities exchange or nationally recognized trading system.

#### *Right as a Stockholder*

Except as otherwise provided in the Warrants or by virtue of such holder's ownership of shares of our Common Stock, the holders of the Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Warrants.

#### *Purchase Rights*

If we grant, issue or sell any shares of our Common Stock or securities exercisable for, exchangeable for or convertible into our Common Stock, or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of our Common Stock (the "Purchase Rights"), then each holder of the Warrants 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 the Warrant immediately before the record date, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined, for the grant, issue or sale of such Purchase Rights.

#### *Fundamental Transaction*

In the event of a fundamental transaction, as described in the 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 Warrants will be entitled to receive upon exercise of the Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Warrants immediately prior to such fundamental transaction. In connection with certain types of fundamental transactions, each holder of Warrants has the right to receive, upon the consummation of such transaction, the Black Scholes value of the holder's Warrants, as calculated in the Warrants.

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## PLAN OF DISTRIBUTION

Pursuant to an engagement letter dated February 21, 2023, we engaged Katalyst Securities LLC (“Katalyst” or the “placement agent”) to act as our non-exclusive placement agent in connection with this offering of our shares of Preferred Stock and Warrants pursuant to this prospectus supplement and accompanying prospectus. Under the terms of the placement agreement, the placement agent agreed to be our non-exclusive placement agent on a “best efforts” basis in connection with the issuance and sale by us of our shares of Common Stock in this offering.

We have entered into the Securities Purchase Agreement directly with investors in connection with this offering, and we will only sell to those investors who have entered into the Securities Purchase Agreement. The terms of this offering were subject to market conditions and negotiations between us, the placement agent and prospective investors. The Securities Purchase Agreement does not give rise to any commitment by the placement agent to purchase any of our shares of Preferred Stock or Warrants, and the placement agent will have no authority to bind us by virtue of the Securities Purchase Agreement. Further, the placement agent does not guarantee that it will be able to raise new capital in any prospective offering.

We expect to deliver the shares of our Preferred Stock and Warrants being offered pursuant to this prospectus supplement on or about February 23, 2023.

We have agreed to pay the placement agent a cash fee equal to 6% of the gross proceeds of this offering. We have also agreed to reimburse the placement agent at closing for expenses incurred by it in connection with the offering, including legal fees of Katalyst’s counsel, in the amount of \$5,000. The following table shows the per share and total cash placement agent’s fees we will pay to the placement agent in connection with the sale of our shares of Preferred Stock and accompanying Warrants offered pursuant to this prospectus supplement and the accompanying prospectus, assuming the purchase of all of the securities offered hereby.

	Per Share of Preferred Stock and Accompanying Warrant		Total
Offering Price	\$	1,000	\$ 15,000,000
Placement Agent Fees	\$	60	\$ 900,000
Proceeds, before expenses, to us	\$	940	\$ 14,100,000

We estimate the total expenses payable by us for this offering will be less than \$50,000, which amount excludes the placement agent’s fees and expenses.

We have agreed to indemnify the placement agent and specified other persons against some civil liabilities, including liabilities under the Securities Act, and the Securities Exchange Act of 1934, as amended, or the Exchange Act, and to contribute to payments that the placement agent may be required to make in respect of such liabilities.

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### General

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by them and any profit realized on the resale of the shares sold by them while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares by the placement agent acting as principal. Under these rules and regulations, the placement agent:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

This prospectus supplement and the accompanying prospectus may be made available in electronic format on websites or through other online services maintained by the placement agent or by an affiliate. Other than this prospectus supplement and the accompanying prospectus, the information on the placement agent’s website and any information contained in any other website maintained by the placement agent is not part of this prospectus supplement and the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved and/or endorsed by us or the placement agent, and should not be relied upon by investors.

The foregoing does not purport to be a complete statement of the terms and conditions of the securities purchase agreement. A copy of the securities purchase agreement with the purchasers was filed as an exhibit to a Current Report on Form 8-K in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement and the accompanying prospectus form a part. See “Incorporation By Reference” and “Where You Can Find More Information.”

No action has been or will be taken in any jurisdiction (except in the United States) that would permit a public offering of the securities offered by this prospectus supplement and accompanying prospectus, or the possession, circulation or distribution of this prospectus supplement and accompanying prospectus or any other material relating to us or the securities offered hereby in any jurisdiction where action for that purpose is required. Accordingly, the securities offered hereby may not be offered or sold, directly or indirectly, and neither of this prospectus supplement and accompanying prospectus nor any other offering material or advertisements in connection with the securities offered hereby may be distributed or published, in or from any country or jurisdiction except in compliance with any applicable rules and regulations of any such country or jurisdiction. The placement agent may arrange to sell securities offered by this prospectus supplement and accompanying prospectus in certain jurisdictions outside the United States, either directly or through affiliates, where they are permitted to do so.

The transfer agent and registrar for our Common Stock is Securities Transfer Corp.

Our shares of Common Stock are listed on The Nasdaq Capital Market under the symbol “MYMD.”

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### LEGAL MATTERS

Certain legal matters with respect to the securities offered by this prospectus supplement will be passed upon for us by Haynes and Boone, LLP, New York, New York and by DLA Piper LLP (US), Short Hills, New Jersey. Barbara J. Glenss, Esq. has acted as counsel for the placement agent in connection with certain legal matters relating to this offering.

### EXPERTS

Morison Cogen LLP, an independent registered public accounting firm, has audited our consolidated financial statements for the fiscal year ended December 31, 2021 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as set forth in their report, which is incorporated by reference in this prospectus. Our consolidated financial statements are incorporated by reference in reliance on the reports of Morison Cogen LLP given on their authority as experts in accounting and auditing.

Cherry Bekaert LLP, an independent registered public accounting firm, has audited our consolidated financial statements for the fiscal year ended December 31, 2020 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as set forth in their report, which is incorporated by reference in this prospectus. Our consolidated financial statements are incorporated by reference in reliance on the reports of Cherry Bekaert LLP given on their authority as experts in accounting and auditing.

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### WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement, filed as part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, we refer you to the registration statement and to its exhibits and schedules.

We file annual, quarterly and current reports and other information with the SEC. The SEC maintains an internet website at [www.sec.gov](http://www.sec.gov) that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC.

These documents are also available, free of charge, through the Investors section of our website, which is located at <https://www.mymd.com/>. Information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus and you should not consider information on our website to be part of this prospectus supplement or the accompanying prospectus.

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### INCORPORATION BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with it. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus omit certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits thereto, for further information about us and the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. Statements in this prospectus supplement and the accompanying prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in “Where You Can Find More Information.” The documents we are incorporating by reference are:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 31, 2022;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2022, filed with the SEC on May 16, 2022; our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2022, filed with the SEC on August 15, 2022; and our Quarterly Report on [Form 10-Q](#) for the quarter ended September 30, 2022, filed with the SEC on November 10, 2022;
- our Current Reports on Form 8-K filed with the SEC on [August 17, 2022](#), [December 14, 2022](#), [February 3, 2023](#), and [February 21, 2023](#);
- the description of our Common Stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission on March 31, 2022, including any amendments thereto or reports filed for the purposes of updating this description

In addition, all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed in such forms that are related to such items unless such Form 8-K expressly provides to the contrary) subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus supplement and the accompanying prospectus.

Any statement contained in this prospectus supplement and the accompanying prospectus, or any free writing prospectus provided in connection with this offering or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement and the accompanying prospectus, or any free writing prospectus provided in connection with this offering or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement and the accompanying prospectus.

Upon written or oral request, we will provide you without charge, a copy of any or all of the documents incorporated by reference, other than exhibits to those documents unless the exhibits are specifically incorporated by reference in the documents. Please send requests to MyMD Pharmaceuticals, Inc., 855 N. Wolfe Street, Suite 601, Baltimore, MD 21205. You should rely only on information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering. We have not authorized anyone to provide you with information different from that contained in this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering or incorporated by reference in this prospectus supplement and the accompanying prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or to anyone to whom it is unlawful to make such offer or solicitation.

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S-23



**\$100,000,000  
Common Stock  
Preferred Stock  
Warrants  
Units**

We may offer and sell from time to time, in one or more series or issuances and on terms that we will determine at the time of the offering, any combination of the securities described in this prospectus, up to an aggregate amount of \$100,000,000.

We will provide specific terms of any offering in a supplement to this prospectus. Any prospectus supplement may also add, update, or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement as well as the documents incorporated or deemed to be incorporated by reference in this prospectus before you purchase any of the securities offered hereby.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities, their compensation, and any over-allotment options held by them will be described in the applicable prospectus supplement. See “Plan of Distribution.”

Our common stock is listed on the Nasdaq Capital Market (the “NASDAQ”) under the symbol “MYMD.” On April 27, 2021, the last reported sale price of our common stock as reported on the NASDAQ was \$4.03 per share. We recommend that you obtain current market quotations for our common stock prior to making an investment decision. We will provide information in any applicable prospectus supplement regarding any listing of securities other than shares of our common stock on any securities exchange.

Effective as of 4:05 pm Eastern Time on April 16, 2021, we filed an amendment to our Amended and Restated Certificate of Incorporation to effect a reverse stock split of the issued and outstanding shares of our common stock, at a ratio of one share for two shares. All share and per share prices in this prospectus have been adjusted to reflect the reverse stock split. However, common stock share and per share amounts in certain of the documents incorporated by reference herein have not been adjusted to give effect to the reverse stock split.

**You should carefully read this prospectus, any prospectus supplement relating to any specific offering of securities, and all information incorporated by reference herein and therein.**

**Investing in our securities involves a high degree of risk. These risks are discussed in this prospectus under “Risk Factors” beginning on page 4 and in the documents incorporated by reference into this prospectus.**

**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.**

The date of this prospectus is           , 2021

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**ABOUT THIS PROSPECTUS**

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission using a “shelf” registration process. Under this shelf process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total amount of \$100,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also add, update, or change in a prospectus supplement any information contained in this prospectus. To the extent any statement made in a prospectus supplement or a document incorporated by reference herein after the date hereof is inconsistent with the statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement or the incorporated document.

The prospectus supplement to be attached to the front of this prospectus may describe, as applicable: the terms of the securities offered; the public offering price; the price paid for the securities; net proceeds; and the other specific terms related to the offering of the securities.

You should only rely on the information contained or incorporated by reference in this prospectus and any prospectus supplement or issuer free writing prospectus relating to a particular offering. No person has been authorized to give any information or make any representations in connection with this offering other than those contained or incorporated by reference in this prospectus, any accompanying prospectus supplement, and any related issuer free writing prospectus in connection with the offering described herein and therein, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement nor any related issuer free writing prospectus shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits.

You should read the entire prospectus and any prospectus supplement and any related issuer free writing prospectus, as well as the documents incorporated by reference into this prospectus or any prospectus supplement or any related issuer free writing prospectus, before making an investment decision. Neither the delivery of this prospectus or any prospectus supplement or any issuer free writing prospectus nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement or issuer free writing prospectus is correct as of any date subsequent to the date hereof or of such prospectus supplement or issuer free writing prospectus, as applicable. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since that date.

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## CAUTIONARY NOTE ON FORWARD LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward looking statements that involve risks and uncertainties. All statements other than statements of historical fact contained in this prospectus and the documents incorporated by reference herein, including statements regarding future events, our future financial performance, business strategy, and plans and objectives of management for future operations, are forward-looking statements. When we use the words “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “will” and other similar terms and phrases, including references to assumptions, we are identifying forward-looking statements. Forward-looking statements involve risks and uncertainties, which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. Forward-looking statements are based on information we have when those statements are made or our management’s good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- fluctuation and volatility in market price of our common stock due to market and industry factors, as well as general economic, political and market conditions;
- the impact of dilution on our shareholders;
- our ability to realize the intended benefits of the Merger and the Contribution Transaction;
- the impact of our ability to realize the anticipated tax impact of the merger;
- the outcome of litigation or other proceedings we may become subject to in the future;
- delisting of our common stock from the Nasdaq;
- our availability and ability to continue to obtain sufficient funding to conduct planned research and development efforts and realize potential profits;
- our ability to develop and commercialize our product candidates, including MyMD-1, Supera-CBD and other future product candidates;
- the impact of the complexity of the regulatory landscape on our ability to seek and obtain regulatory approval for our product candidates, both within and outside of the U.S.;
- the required investment of substantial time, resources and effort for successful clinical development and marketization of our product candidates;
- challenges we may face with maintaining regulatory approval, if achieved;
- the potential impact of changes in the legal and regulatory landscape, both within and outside of the U.S.;
- the impact of the recent COVID-19 pandemic on the administration, funding and policies of regulatory authorities, both within and outside of the U.S.;
- our dependence on third parties to conduct pre-clinical and clinical trials and manufacture its product candidates;
- the impact of the recent COVID-19 pandemic on our results of operations, business plan and the global economy;
- challenges we may face with respect to its product candidates achieving market acceptance by providers, patients, patient advocacy groups, third party payors and the general medical community;
- the impact of pricing, insurance coverage and reimbursement status of our product candidates;
- emerging competition and rapidly advancing technology in our industry;
- our ability to obtain, maintain and protect its trade secrets or other proprietary rights, operate without infringing upon the proprietary rights of others and prevent others from infringing on its proprietary rights;
- our ability to maintain adequate cyber security and information systems;
- our ability to achieve the expected benefits and costs of the transactions related to the acquisition of Supera;
- our ability to effectively execute and deliver our plans related to commercialization, marketing and manufacturing capabilities and strategy;
- emerging competition and rapidly advancing technology in our industry;
- our ability to obtain adequate financing in the future on reasonable terms, as and when we need it;
- challenges we may face in identifying, acquiring and operating new business opportunities;
- our ability to retain and attract senior management and other key employees;
- our ability to quickly and effectively respond to new technological developments;
- changes in political, economic or regulatory conditions generally and in the markets in which we operate;
- our compliance with all laws, rules, and regulations applicable to our business and COVID-19 Vaccine Candidate;
- other factors discussed in this prospectus and the documents incorporated by reference herein, including those set forth under “Risk Factors” in our [joint proxy](#) and consent solicitation statement/prospectus, dated March 23, 2021, filed with the Securities and Exchange Commission (the “SEC”) pursuant to Rule 424(b) of the Securities Act, forming a part of the registration statement on Form S-4, as amended, which was declared effective as of March 23, 2021.

The foregoing does not represent an exhaustive list of risks that may impact upon the forward-looking statements used herein or in the documents incorporated by reference herein. For a more detailed discussion of such risks and other important factors that could cause actual results to differ materially from those in such forward-looking statements and forward-looking information, please see “Risk Factors” on page 4 of this prospectus as well as the risk factors included in the documents incorporated herein by reference, including from the [joint proxy](#) and consent solicitation statement/prospectus, dated March 23, 2021. Although we have attempted to identify important factors that could cause actual results to differ materially from those described in forward-looking statements and forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that these statements will prove to be accurate as actual results and future events could differ materially from those anticipated in the statements. Except as required by law, we assume no obligation to publicly update any forward-looking statements and forward-looking information, whether as a result of new information, future events or otherwise. We qualify all forward-looking statements by these cautionary statements. For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

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This summary provides an overview of selected information contained elsewhere or incorporated by reference in this prospectus and does not contain all of the information you should consider before investing in our securities. You should carefully read the prospectus, the information incorporated by reference and the registration statement of which this prospectus is a part in their entirety, including the [joint proxy](#) and consent solicitation statement/prospectus, dated March 23, 2021, before investing in our securities, including the information discussed under “Risk Factors” beginning on page 4 in this prospectus and the documents incorporated by reference and our financial statements and related notes that are incorporated by reference in this prospectus, including the [joint proxy](#) and consent solicitation statement/prospectus, dated March 23, 2021.

As used herein, and any amendment or supplement hereto, unless otherwise indicated, “we,” “us,” “our,” the “Company,” “MyMD” or similar terminology means MyMD Pharmaceuticals, Inc.

## Overview

We were historically a developer of rapid health information technologies but since March 2020, have been primarily focused on the development of a vaccine candidate against SARS-CoV-2, a coronavirus currently causing a pandemic throughout the world (“COVID-19”). Following closing of the Merger and the Contribution Transaction described below that occurred on April 16, 2021, we are focused on developing and commercializing two therapeutic platforms based on well-defined therapeutic targets, MyMD-1 and SUPERA-CBD:

- MyMD-1 is a clinical stage small molecule that regulates the immunometabolic system to treat autoimmune disease, including (but not limited to) multiple sclerosis, diabetes, rheumatoid arthritis, and inflammatory bowel disease. MyMD-1 is being developed to treat age-related illnesses such as frailty and sarcopenia. MyMD-1 works by regulating the release of numerous pro-inflammatory cytokines, such as TNF- $\alpha$ , interleukin 6 (“IL-6”) and interleukin 17 (“IL-17”). MyMD-1 will be evaluated in patients with depression due to COVID-19 related to the release of cytokines. The company has significant intellectual property coverage to protect these autoimmune indications as well as therapy as an anti-aging product;
- Supera-CBD is a synthetic derivative of CBD being developed to treat various conditions, including, but not limited to, epilepsy, pain and anxiety/depression, through its effects on the CB2 receptor, and a monoamine oxidase enzyme (“MAO”) type B. Supera-CBD has shown tremendous promise in treating neuroinflammatory and neurodegenerative diseases, and will be a major focus as the company move forward.

The rights to Supera-CBD were previously owned by Supera Pharmaceuticals, Inc. (“Supera”) and was acquired by MyMD Florida (as defined below) immediately prior to the closing of the Merger.

## Recent Developments

### *Closing of the Merger*

On April 16, 2021, pursuant to the previously announced Agreement and Plan of Merger and Reorganization, dated November 11, 2020 (the “Original Merger Agreement”), as amended by Amendment No. 1 thereto, dated March 16, 2021 (the Original Merger Agreement, as amended by Amendment No. 1, the “Merger Agreement”), by and among MyMD Pharmaceuticals, Inc., a New Jersey corporation previously known as Akers Biosciences, Inc. (the “Company”), XYZ Merger Sub Inc., a Florida corporation and a wholly owned subsidiary of the Company (“Merger Sub”), and MyMD Pharmaceuticals (Florida), Inc., a Florida corporation previously known as MyMD Pharmaceuticals, Inc. (“MyMD Florida”), Merger Sub was merged with and into MyMD Florida, with MyMD Florida continuing after the merger as the surviving entity and a wholly owned subsidiary of the Company (the “Merger”). At the effective time of the Merger, without any action on the part of any stockholder, each issued and outstanding share of MyMD Florida’s common stock, par value \$0.001 per share (the “MyMD Florida Common Stock”), including shares underlying MyMD’s outstanding equity awards, was converted into the right to receive (x) 0.7718 shares (the “Exchange Ratio”) of the Company’s common stock, no par value per share (the “Company Common Stock”), (y) an amount in cash, on a pro rata basis, equal to the aggregate cash proceeds received by the Company from the exercise of any options to purchase shares of MyMD Florida Common Stock outstanding at the effective time of the Merger assumed by the Company upon closing of the Merger prior to the second-year anniversary of the closing of the Merger (the “Option Exercise Period”), such payment (the “Additional Consideration”), and (z) potential milestone payment in shares of Company Common Stock up to the aggregate number of shares issued by the Company to MyMD Florida stockholders at the closing of the Merger payable upon the achievement of certain market capitalization milestone events during the 36-month period immediately following the closing of the Merger. Immediately following the effective time of the Merger, the Company effected a 1-for-2 reverse stock split of the issued and outstanding Company Common Stock (the “Reverse Stock Split”). Upon completion of the Merger and the transactions contemplated in the Merger Agreement, (i) the former MyMD Florida equity holders own approximately 77.39% of the outstanding equity of the Company on a fully diluted basis, assuming the exercise in full of the pre-funded warrants to purchase 986,486 shares of Company Common stock and including 4,188,315 shares of Company Common Stock underlying options to purchase shares of MyMD Florida Common Stock assumed by the company at closing and after adjustments based on the Company’s net cash at closing; and (ii) former Akers Biosciences, Inc. (“Akers”) stockholders own approximately 22.61% of the outstanding equity of the Company.

### *Closing of Contribution and Assignment Agreement*

As previously reported, on March 23, 2020, we entered into a membership interest purchase agreement (as amended by Amendment No. 1 on May 14, 2020, the “MIPA”) to acquire 100% of the membership interests of Cystron Biotech, LLC (“Cystron”) from certain selling parties (the “Cystron Sellers”). Cystron is a party to a license agreement (as amended and restated on March 19, 2020, in connection with our entry into the MIPA, the “License Agreement”) with Premas Biotech PVT Ltd. (“Premas”) whereby Premas granted Cystron, amongst other things, an exclusive license with respect to Premas’ vaccine platform for the development of a vaccine against COVID-19.

On April 16, 2021, pursuant to the previously announced Contribution and Assignment Agreement, dated March 18, 2021 (the “Contribution and Assignment Agreement”) by and among the Company, Cystron Biotech LLC, a Delaware limited liability company and wholly owned subsidiary of the Company (“Cystron”), Oravax Medical, Inc. (“Oravax”) and, for the limited purpose set forth therein, Premas Biotech PVT Ltd. (“Premas”) the parties consummated the transactions contemplated therein. Pursuant to the Contribution and Assignment Agreement, effective upon the closing of the Merger, Akers agreed (i) to contribute an amount in cash equal to \$1,500,000 to Oravax and (ii) cause Cystron to contribute substantially all of the assets associated with its business or developing and manufacturing Cystron’s COVID-19 vaccine candidate to Oravax (the “Contribution Transaction”). In consideration for the Company’s commitment to consummate the Contribution Transaction, Oravax issued to the Company 390,000 shares of its capital stock (equivalent to 13% of Oravax’s outstanding capital stock on a fully diluted basis) and assumed all of the obligations or liabilities in respect of the assets of Cystron, including the obligations under the license agreement with Premas. In addition, Oravax agreed to pay future royalties to the Company equal to 2.5% of all net sales of products (or combination products) manufactured, tested, distributed and/or marketed by Oravax or its subsidiaries.

### *Reverse Stock Split*

On April 15, 2021, at the special meeting of the Company’s stockholders, the Company’s stockholders approved a certificate of amendment to the Company’s certificate of incorporation to effect the Reverse Stock Split. On April 16, 2021, the Company filed the certificate of amendment to the Company’s certificate of incorporation with the Secretary of State of the State of New Jersey to effect the Reverse Stock Split (the “Reverse Split Amendment”). As a result of the Reverse Stock Split, immediately following the effective time of the Merger, every two shares of the Company Common Stock held by a stockholder immediately prior to the Reverse Stock Split were combined and reclassified into one share of the Company’s Common Stock. No fractional shares were issued in connection with the Reverse Stock Split. The Reverse Split Amendment provides that each stockholder who did not have a number of shares evenly divisible pursuant to the Reverse Stock Split ratio and who would otherwise be

entitled to receive a fractional share of Company Common Stock was entitled to receive an additional share of Company Common Stock. All share and related option and warrant information presented in this prospectus supplement have been retroactively adjusted to reflect the decreased number of shares outstanding, and the increase in share price, which resulted from these actions. However, common stock share and per share amounts in the accompanying prospectus and certain of the documents incorporated by reference herein have not been adjusted to give effect to the Reverse Stock Split.

### **Corporate Information**

We were incorporated in 1989 in the state of New Jersey. Effective as of April 16, 2021, upon consummation of the Merger, the corporation's name was changed from "Akers Biosciences, Inc." to "MyMD Pharmaceuticals, Inc." Our principal executive offices are located at 855 N. Wolfe Street, Suite 623, Baltimore, MD 21205, and our telephone number is (856) 848-8698. Our corporate website address is [www.mymd.com](http://www.mymd.com). The information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

### **The Securities We May Offer**

We may offer up to \$100,000,000 of common stock, preferred stock, warrants, and/or units in one or more offerings and in any combination. This prospectus provides you with a general description of the securities we may offer. A prospectus supplement, which we will provide each time we offer securities, will describe the specific amounts, prices, and terms of these securities.

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### **Common Stock**

We may issue shares of our common stock from time to time. The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders and there are no cumulative rights. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors (the "Board") out of funds legally available for that purpose. We do not anticipate paying any cash dividends on our common stock in the foreseeable future but intend to retain our capital resources for reinvestment in our business. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock or other senior securities then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. The outstanding shares of common stock are fully paid and non-assessable, and any shares of common stock to be issued upon an offering pursuant to this prospectus and the related prospectus supplement will be fully paid and nonassessable upon issuance. To the extent that additional shares of our common stock may be issued in the future, the relative interests of the then existing stockholders may be diluted.

### **Preferred Stock**

We may issue shares of our preferred stock from time to time, in one or more series. Our Board will determine the rights, preferences, privileges, and restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by stockholders. Convertible preferred stock will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at your option or both and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus and applicable prospectus supplements, we will fix the rights, preferences, privileges, and restrictions of the preferred stock of such series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the Securities and Exchange Commission, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the applicable prospectus supplement related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

### **Warrants**

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities. We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into warrant agreements with a bank or trust company that we select to be our warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement related to the particular series of warrants being offered, as well as the warrant agreements and warrant certificates that contain the terms of the warrants. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the Securities and Exchange Commission, the form of warrant agreement or warrant certificate containing the terms of the warrants we are offering before the issuance of the warrants.

### **Units**

We may issue units consisting of common stock, preferred stock and/or warrants for the purchase of common stock or preferred stock in one or more series. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the applicable prospectus supplement related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference reports that we file with the Securities and Exchange Commission, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

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## **RISK FACTORS**

*An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Before deciding whether to invest in our securities, you should consider carefully the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed in our most recent Annual Report on Form 10-K or any updates in our Quarterly Reports on Form 10-Q, together with all other information appearing in or incorporated by reference into this prospectus or the applicable prospectus supplement, and under "Risk Factors" in our [joint proxy and consent solicitation statement/prospectus](#), dated March 23, 2021, which are incorporated herein by reference, as updated or superseded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus and any prospectus supplement related to a particular offering. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. Past financial performance may*



*not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. This could cause the trading price of our Common Stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section above entitled "Cautionary Note on Forward-Looking Statements."*

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## USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we intend to use any net proceeds from the sale of securities under this prospectus for our operations and for other general corporate purposes, including, but not limited to, general working capital and possible future acquisitions. We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. The amounts and timing of these expenditures will depend on numerous factors, including the development of our current business initiatives.

Investors are cautioned, however, that expenditures may vary substantially from these uses. Investors will be relying on the judgment of our management, who will have broad discretion regarding the application of the proceeds of this offering. The amounts and timing of our actual expenditures will depend upon numerous factors, including the amount of cash generated by our operations, the amount of competition, and other operational factors. We may find it necessary or advisable to use portions of the proceeds from this offering for other purposes.

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## DESCRIPTION OF CAPITAL STOCK

In connection with the Merger, on April 16, 2021, we amended and restated our Amended and Restated Certificate of Incorporation, as amended (the "A&R Charter") and filed the certificate of amendment to the A&R Charter to effect the Reverse Stock Split. In addition, effective as of the effective time of the Merger, we adopted amended and restated bylaws (the "Amended and Restated Bylaws").

The following description of common stock and preferred stock summarizes the material terms and provisions of the common stock and preferred stock that we may offer under this prospectus but is not complete. For the complete terms of our common stock and preferred stock, please refer to our A&R Charter, as amended, any certificates of designation for our preferred stock, and our Amended and Restated Bylaws, as may be amended from time to time. While the terms we have summarized below will apply generally to any future common stock or preferred stock that we may offer, we will describe the specific terms of any series of preferred stock in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any preferred stock we offer under that prospectus supplement may differ from the terms we describe below.

### General

We are authorized to issue 550,000,000 shares, no par value, of which 500,000,000 shares are common stock ("Common Stock") and 50,000,000 shares are preferred stock ("Preferred Stock"). Of the 50,000,000 shares of Preferred Stock, the Company previously approved and designated 1,990,000 shares as Series C Convertible Preferred Stock, 211,353 shares as Series D Convertible Preferred Stock, and 100,000 shares as Series E Junior Participating Preferred Stock. Our Board has the authority, without further action by the stockholders, to issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions granted to or imposed upon the preferred stock. As of April 23, 2021, there were 36,880,037 shares of common stock issued and outstanding and no shares of Series C Convertible Preferred Stock or Series E Junior Participating Preferred Stock issued and outstanding. As of April 23, 2021, there were 72,992 shares of Series D Convertible Preferred Stock issued and outstanding convertible into 36,496 shares of common stock and warrants to purchase 55,000 Series C Preferred Stock convertible into 27,500 shares of common stock outstanding.

### Common Stock

#### *Voting Rights*

Each MyMD shareholder has one vote for each share of common stock held on all matters submitted to a vote of stockholders. A shareholder may vote in person or by proxy. Elections of directors are determined by a plurality of the votes cast and all other matters are decided by a majority of the votes cast by those stockholders entitled to vote and present in person or by proxy.

Because MyMD stockholders do not have cumulative voting rights, stockholders holding a majority of the voting power of MyMD shares of common stock will be able to elect all of the MyMD directors. The A&R Charter and the Amended and Restated Bylaws provide that shareholder actions may be effected at a duly called meeting of stockholders or pursuant to written consent of the majority of stockholders. A special meeting of stockholders may be called by the president, chief executive officer or the board of directors pursuant to a resolution approved by the majority of the Board.

The A&R Charter provides that holders of preferred stock may not vote on any amendment or alteration of the A&R Charter that would authorize, create, or increase the amount of any other class or series of preferred stock or any alteration, amendment or repeal of any provision or any other series of preferred stock that does not adversely affect in any material respect the rights of such holder, and that holders of common stock may not vote on any amendment or alteration of the A&R Charter that alters, amends or changes the powers, preferences, rights or other terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together with the holders or one or more other series of preferred stock, to vote thereon.

#### *Dividend Rights*

The holders of outstanding shares of common stock are entitled to receive dividends out of funds legally available at the times and in the amounts that the MyMD board of directors may determine, provided that required dividends, if any, on preferred stock have been paid or provided for. However, to date, MyMD has not paid or declared cash distributions or dividends on MyMD common stock and does not currently intend to pay cash dividends on its common stock in the foreseeable future. MyMD intends to retain all earnings, if and when generated, to finance its operations. The declaration of cash dividends in the future will be determined by the board of directors based upon MyMD's earnings, financial condition, capital requirements and other relevant factors.

#### *No Preemptive or Similar Rights*

Holders of MyMD's common stock do not have preemptive rights, and common stock is not convertible or redeemable.

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#### *Right to Receive Liquidation Distributions*

Upon MyMD's dissolution, liquidation or winding-up, the assets legally available for distribution to MyMD's stockholders and remaining after payment to holders of preferred stock of the amounts, if any, to which they are entitled, are distributable ratably among the holders of MyMD common stock subject to any senior class of securities.

MyMD common stock is listed on The Nasdaq Capital Market under the ticker symbol “MYMD”. Prior to April 19, 2021, MyMD common stock was previously listed under the ticker symbol “AKER” on The Nasdaq Capital Market.

*Transfer Agent and Registrar*

The transfer agent and registrar for our common stock is Action Stock Transfer Corporation, 2469 E. Fort Union Blvd., Suite 214, Salt Lake City, UT 84121.

**Preferred Stock**

MyMD may issue any class of preferred stock in any series. The MyMD board of directors has the authority, subject to limitations prescribed under New Jersey law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations and restrictions. The MyMD board of directors can also increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding. The MyMD board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of MyMD and may adversely affect the market price of common stock and the voting and other rights of the holders of common stock.

**Anti-Takeover Provisions**

The authorization of undesignated preferred stock makes it possible for the MyMD board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change MyMD’s control.

These provisions are intended to enhance the likelihood of continued stability in the composition of the MyMD board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of MyMD .

These provisions are also designed to reduce MyMD’s vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for MyMD shares and may have the effect of deterring hostile takeovers or delaying changes in MyMD’s control or management. As a consequence, these provisions also may inhibit fluctuations in the market price of MyMD’s stock that could result from actual or rumored takeover attempts.

In addition, MyMD is subject to Section 14A-10A of the New Jersey Shareholders Protection Act, a type of anti-takeover statute designed to protect stockholders against coercive, unfair or inadequate tender offers and other abusive tactics and to encourage any person contemplating a business combination with MyMD to negotiate with the MyMD board of directors for the fair and equitable treatment of all stockholders. Subject to certain qualifications and exceptions, the statute prohibits an “interested stockholder” of the combined company from effecting a business combination with the combined company for a period of five years unless its board of directors approved the combination or transaction or series of related transactions that caused such person to become an interested stockholder prior to the stockholder becoming an interested stockholder or after the stockholder becomes an interested stockholder if the subsequent business combination is approved by (i) the combined company’s board of directors (or a committee thereof consisting solely of persons independent from the interested stockholder), and (ii) the affirmative vote of a majority of the voting stock not beneficially owned by such interested stockholder. In addition, but not in limitation of the five-year restriction, the combined company may not engage at any time in a business combination with any interested stockholder of the combined company unless the combination is approved by its board of directors (or a committee thereof consisting solely of persons independent from such interested stockholder) prior to the consummation of the business combination, and the combination receives the approval of a majority of the voting stock of the combined company not beneficially owned by the interested stockholder if the transaction or series of related transactions which caused the interested stockholder to become an interested stockholder was approved by the board of directors prior to the stockholder becoming an interested stockholder.

An “interested shareholder” is defined to include any beneficial owner of 10% or more of the voting power of the outstanding voting stock of the corporation and any affiliate or associate of the corporation who within the prior five-year period has at any time owned 10% or more of the voting power of the then outstanding stock of the corporation.

The term “business combination” is defined to include a broad range of transactions including, among other things:

- the merger or consolidation of the corporation, or any of its subsidiaries, with the interested shareholder or any other corporation that is, or after the merger or consolidation, would be an affiliate or associate of the interested shareholder,
- the sale, lease, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of transactions) to an interested shareholder or any affiliate or associate of the interested shareholder of (i) 10% or more of the aggregate market value of corporation’s assets, (ii) 10% or more of the aggregate market value of all the corporation’s outstanding stock, or (iii) representing 10% or more of the earning power or income of the corporation, determined on a consolidated basis; or
- the issuance or transfer by the corporation, or any of its subsidiaries, (in one transaction or a series of transactions) to an interested shareholder or any affiliate or associate of the interested shareholder of 5% or more of the aggregate market value of the stock of the corporation, or any of its subsidiaries, except pursuant to an exercise of warrants or rights to purchase stock offered, or a dividend or distribution paid or made, pro rata to all stockholders of the corporation.

The effect of the statute is to protect non-tendering, post-acquisition minority stockholders from mergers in which they will be “squeezed out” after the merger, by prohibiting transactions in which an acquirer could favor itself at the expense of minority stockholders. The statute generally applies to corporations that are organized under New Jersey law.

**DESCRIPTION OF WARRANTS**

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we may issue under a separate agreement. We may enter into a warrant agreement with a warrant agent. Each warrant agent may be a bank that we select which has its principal office in the United States. We may also choose to act as our own warrant agent. We will indicate the name and address of any such warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number or amount of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which and currency in which these shares may be purchased upon such exercise;
- the manner of exercise of the warrants, including any cashless exercise rights;
- the warrant agreement under which the warrants will be issued;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- anti-dilution provisions of the warrants, if any;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire or, if the warrants are not continuously exercisable during that period, the specific date or dates on which the warrants will be exercisable;
- the manner in which the warrant agreement and warrants may be modified;
- the identities of the warrant agent and any calculation or other agent for the warrants;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants;
- any securities exchange or quotation system on which the warrants or any securities deliverable upon exercise of the warrants may be listed or quoted; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants may not have any of the rights of holders of the securities purchasable upon such exercise, including, in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

#### **Exercise of Warrants**

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. eastern time, the close of business, on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information and paying the required exercise price by the methods provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate, and in the applicable prospectus supplement, the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will, if required by the terms of the warrant, issue a new warrant certificate for the remaining amount of warrants.

#### **Enforceability of Rights By Holders of Warrants**

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action the holder's right to exercise, and receive the securities purchasable upon exercise of, its warrants in accordance with their terms.

#### **Warrant Agreement Will Not Be Qualified Under Trust Indenture Act**

No warrant agreement will be qualified as an indenture, and no warrant agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of warrants issued under a warrant agreement will not have the protection of the Trust Indenture Act with respect to their warrants.

#### **Governing Law**

Unless we provide otherwise in the applicable prospectus supplement, each warrant agreement and any warrants issued under the warrant agreements will be governed by the laws of New York.

## **DESCRIPTION OF UNITS**

We may issue units comprised of one or more of the other securities described in this prospectus or any prospectus supplement in any combination. Each unit will be issued so

that the holder of the unit is also the holder, with the rights and obligations of a holder, of each security included in the unit. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any times before a specified date or upon the occurrence of a specified event or occurrence.

The applicable prospectus supplement will describe:

- the designation and the terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any unit agreement under which the units will be issued;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

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## PLAN OF DISTRIBUTION

We may sell the securities offered pursuant to this prospectus from time to time in one or more transactions, including, without limitation:

- to or through underwriters;
- through broker-dealers (acting as agent or principal);
- through agents;
- directly by us to one or more purchasers (including our affiliates and stockholders), through a specific bidding or auction process, a rights offering or otherwise;
- through a combination of any such methods of sale; or
- through any other methods described in a prospectus supplement or free writing prospectus.

The distribution of securities may be effected, from time to time, in one or more transactions, including:

- block transactions (which may involve crosses) and transactions on the NASDAQ or any other organized market where the securities may be traded;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its own account pursuant to a prospectus supplement or free writing prospectus;
- ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;
- sales "at the market" to or through a market maker or into an existing trading market, on an exchange or otherwise; and
- sales in other ways not involving market makers or established trading markets, including direct sales to purchasers.

The applicable prospectus supplement or free writing prospectus will describe the terms of the offering of the securities, including:

- the name or names of any underwriters, if, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed or traded.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; or
- negotiated prices.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

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If underwriters are used in an offering, we will execute an underwriting agreement with such underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement or free writing prospectus. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more investment banking firms or others, as designated. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement or free writing prospectus, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all of the offered securities, if any are purchased.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price, with additional underwriting commissions or discounts, as may be set forth in a related prospectus supplement or free writing prospectus. The terms of any over-allotment option will be set forth in the prospectus supplement or free writing prospectus for those securities.

If a dealer is used in the sale of the securities, we, or an underwriter, will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. To the extent required, we will set forth in the prospectus supplement, document incorporated by reference or free writing prospectus, as applicable, the name of the dealer and the terms of the transactions.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement.

We may authorize agents or underwriters to solicit offers by institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement or free writing prospectus pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement or free writing prospectus.

In connection with the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities for whom they act as agents, in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agents. Underwriters, dealers, and agents that participate in the distribution of the securities, and any institutional investors or others that purchase securities directly for the purpose of resale or distribution, may be deemed to be underwriters, and any discounts or commissions received by them from us and any profit on the resale of the common stock by them may be deemed to be underwriting discounts and commissions under the Securities Act. No FINRA member firm may receive compensation in excess of that allowable under FINRA rules, including Rule 5110, in connection with the offering of the securities.

We may provide agents, underwriters, and other purchasers with indemnification against particular civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents, underwriters or other purchasers may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

To facilitate the public offering of a series of securities, persons participating in the offering may engage in transactions in accordance with Regulation M under the Exchange Act that stabilize, maintain, or otherwise affect the market price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than have been sold to them by us. In addition, those persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to underwriters or dealers participating in any such offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

Unless otherwise specified in the applicable prospectus supplement or free writing prospectus, any common stock sold pursuant to a prospectus supplement will be eligible for trading as listed on the NASDAQ. Any underwriters who are qualified market makers to whom securities are sold by us for public offering and sale may make a market in the securities in accordance with Rule 103 of Regulation M, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice.

In order to comply with the securities laws of some states, if applicable, the securities offered pursuant to this prospectus will be sold in those states only through registered or licensed brokers or dealers. In addition, in some states securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and complied with.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

#### LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Haynes and Boone, LLP, New York, New York.

#### EXPERTS

Morison Cogen LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on [Form 10-K](#) for the year ended December 31, 2020, as filed on March 1, 2021, as set forth in their report which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Morison Cogen LLP's report, given on their authority as experts in accounting and auditing.

The consolidated financial statements for MyMD Pharmaceuticals, Inc. and Supera Pharmaceuticals, Inc. as of and for the years ended December 31, 2020 and 2019, included in the [joint proxy](#) and consent solicitation statement/prospectus, dated March 23, 2021 and incorporated herein by reference, have been audited by Cherry Bekaert LLP, independent registered public accounting firm, as set forth in their report thereon, which is incorporated by reference in this prospectus and elsewhere in the registration statement, and upon the authority of said firm as experts in accounting and auditing.

#### WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. The Securities and Exchange Commission maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the Securities and Exchange Commission's website is [www.sec.gov](http://www.sec.gov).

We make available free of charge on or through our website at [www.mymd.com](http://www.mymd.com), 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 Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the Securities and Exchange Commission.

We have filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended, relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement for free at [www.sec.gov](http://www.sec.gov). The registration statement and the documents referred to below under "Incorporation of Certain Information By Reference" are also available on our website, [www.mymd.com](http://www.mymd.com).

We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

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**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

The Securities and Exchange Commission allows us to “incorporate by reference” the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the Securities and Exchange Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any future documents (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) we file with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this prospectus and prior to the termination of the offering:

1. Our Annual Report on [Form 10-K](#) for the year ended December 31, 2020, filed with the SEC on March 1, 2021;
2. Our Current Reports on Form 8-K filed with the SEC on [March 18, 2021](#), [April 15, 2021](#), and [April 22, 2021](#); and
3. the following sections from the [joint proxy and consent solicitation statement/prospectus](#), dated March 23, 2021: “[Risk Factors](#),” “[Management of the Combined Company](#),” “[Information About Akers](#),” “[Information About MyMD](#),” “[Principal Stockholders of Akers and the Combined Company](#),” “[Principal Stockholders of MyMD and the Combined Company](#),” “[Related Party Transactions](#),” “[Description of Akers Capital Stock](#),” “[Unaudited Pro Forma Condensed Combined Financial Statements](#),” [the consolidated financial statements for MyMD Pharmaceuticals, Inc. for the years ended December 31, 2020 and 2019 and report of the independent registered public accounting firm, the consolidated financial statements for Supera Pharmaceuticals, Inc. for the years ended December 31, 2020 and 2019 and report of the independent registered public accounting firm](#); and
4. The description of our Common Stock contained in our Registration Statement on [Form 8-A](#), filed on January 17, 2014 pursuant to Section 12(b) of the Exchange Act, which incorporates by reference the description of the shares of our Common Stock contained in the section entitled “Description of Securities” in our Registration Statement on [Form S-1](#) (File No. 333-190456), as initially filed with the SEC on August 7, 2013, as amended, as amended and supplemented by the description of our Common Stock contained in the “[Description of Akers Capital Stock](#)” in the [joint proxy and consent solicitation statement/prospectus](#), dated March 23, 2021, and any amendment or report filed with the SEC for purposes of updating such description.

All filings filed by us pursuant to the Securities Exchange Act of 1934, as amended, after the date of the initial filing of this registration statement and prior to the effectiveness of such registration statement (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) shall also be deemed to be incorporated by reference into the prospectus.

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. Any statement contained in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for the purposes of this prospectus to the extent that a later statement contained in this prospectus or in any other document incorporated by reference into this prospectus modifies or supersedes the earlier statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

You may request, orally or in writing, a copy of these documents, which will be provided to you at no cost (other than exhibits, unless such exhibits are specifically incorporate by reference), by contacting MyMD Pharmaceuticals, Inc., at 855 N. Wolfe Street, Suite 623, Baltimore, MD 21205. Our telephone number is (856) 848-8698. Information about us is also available at our website at <http://www.mymd.com>. However, the information in our website is not a part of this prospectus and is not incorporated by reference.



**15,000 Shares of Preferred Stock  
6,651,885 Warrants to purchase an aggregate of 6,651,885 Shares of Common Stock  
(and the Shares of Common Stock issuable upon the conversion  
of such Preferred Stock and exercise of such Warrants)**

**Prospectus**

**Katalyst Securities LLC**

**February 21, 2023**

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