Issuer Free Writing Prospectus
Filed Pursuant to Rule 433
Dated February 6, 2024
Relating to Preliminary Prospectus Supplement Dated February 5, 2024
Registration Statement No. 333-276872



Common Stock

Pre-funded Warrants to Purchase Shares of Common Stock

This free writing prospectus relates only to the public offering of shares of common stock and pre-funded warrants to purchase shares of common stock by 4D Molecular Therapeutics, Inc. and should be read together with the preliminary prospectus supplement dated February 5, 2024 (the "Preliminary Prospectus Supplement"), and the accompanying base prospectus, in each case, including the documents incorporated by reference therein. The information in this free writing prospectus updates and, to the extent inconsistent, supersedes the information in the Preliminary Prospectus Supplement. This free writing prospectus supplements the Preliminary Prospectus Supplement primarily to reflect the addition of certain pre-funded warrants, and the shares of common stock issuable upon the exercise of such pre-funded warrants, to the securities being offered by 4D Molecular Therapeutics, Inc. in this offering. Except as otherwise indicated, all information in this free writing prospectus and the Preliminary Prospectus Supplement assumes no exercise by the underwriters of their option to purchase additional shares of common stock and no exercise of the pre-funded warrants included in this offering.

This free writing prospectus is qualified in its entirety by reference to the Preliminary Prospectus Supplement and the accompanying base prospectus, in each case, including the documents incorporated by reference therein. Financial information and other information presented in the Preliminary Prospectus Supplement or incorporated by reference therein is deemed to have changed to the extent affected by the changes described herein. This free writing prospectus should be read together with the Preliminary Prospectus Supplement and the accompanying base prospectus, in each case, including the documents incorporated by reference therein, before making a decision in connection with an investment in the securities. Capitalized terms used in this free writing prospectus but not defined have the meanings given to them in the Preliminary Prospectus Supplement.

Issuer 4D Molecular Therapeutics, Inc.

Common stock offered by us \$250.0 million of shares of common stock.

Pre-funded warrants offered by us

We are also offering, in lieu of common stock to certain investors that so choose, pre-funded warrants to purchase shares of common stock. The purchase price of each pre-funded warrant will equal the public offering price per share minus \$0.0001. The exercise price of each pre-funded warrant will equal \$0.0001 per share. Each pre-funded warrant will be exercisable from the date of issuance until the date the warrant is exercised in full, subject to an ownership limitation. See "Description of Pre-Funded Warrants." This free writing prospectus and the Preliminary Prospectus Supplement also relate to the offering of the shares of common stock issuable upon the exercise of such pre-funded warrants.

The lock-up restrictions described in the Preliminary Prospectus Supplement under "Underwriting" will not apply to the issuance of shares of common stock upon the exercise of the pre-funded warrants during the 60-day period following the date of the final prospectus supplement to be filed in connection with this offering.

Option to purchase additional shares of common stock

We have granted the underwriters an option, for a period of 30 days, to purchase additional shares of our common stock. The number of shares subject to the underwriters' option equals 15% of the total number of shares of common stock we are offering plus the shares of common stock underlying the pre-funded warrants.

Nasdaq symbol

Our shares of common stock are listed on the Nasdaq Global Select Market ("Nasdaq") under the symbol "FDMT." There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants on Nasdaq or any other national securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants will be limited. See "Description of Pre-Funded Warrants."

RISK FACTORS

New investors in our shares of common stock or pre-funded warrants will experience immediate and substantial dilution after this offering.

Since the public offering price for our shares of common stock and pre-funded warrants in this offering is substantially higher than the net tangible book value per share of common stock outstanding prior to this offering, you will suffer immediate and substantial dilution in the net tangible book value of the shares of common stock or pre-funded warrants you purchase in this offering. If the underwriters exercise their option to purchase additional shares of common stock, you will experience additional dilution. See the section entitled "Dilution" below for a more detailed discussion of the dilution you will incur if you purchase shares in this offering.

The issuance of additional shares of common stock could be dilutive to stockholders if they do not invest in future offerings. In addition, we have a significant number of options to purchase our shares of common stock outstanding. If these options are exercised, you may incur further dilution. Moreover, to the extent that we issue additional options to purchase, or securities convertible into or exchangeable for, shares of common stock in the future and those options or other securities are exercised, converted or exchanged, stockholders may experience further dilution.

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

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

The pre-funded warrants are not listed on any exchange and we do not intend to list the pre-funded warrants on any exchange.

If you purchase pre-funded warrants, you may be unable to sell such warrants at the prices desired or at all. There is no existing trading market for the pre-funded warrants and there can be no assurance that a liquid market will develop or be maintained for the pre-funded warrants, or that you will be able to sell any of the pre-funded warrants at a particular time (if at all). In addition, we do not intend to apply for listing of the pre-funded warrants on Nasdaq or any other securities exchange or nationally recognized trading system. The liquidity of the trading market in the pre-funded warrants and the sale price, if any, for the pre-funded warrants, may be adversely affected by, among other things: (i) changes in the overall market for the pre-funded warrants; (ii) changes in our financial performance or prospects; (iii) changes or perceived changes in our creditworthiness; (iv) the prospects for companies in the industry generally; (v) the number of holders of the pre-funded warrants; and (vi) the interest of securities dealers in making a market for the pre-funded warrants.

We will not receive a significant amount or any additional funds upon the exercise of the pre-funded warrants.

Each pre-funded warrant is exercisable for \$0.0001 per share of common stock underlying such warrant, which may be paid by way of a cashless exercise, in which the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the pre-funded warrant. Accordingly, we will not receive a significant amount or any additional funds upon the exercise of the pre-funded warrants.

Holders of the pre-funded warrants will have no rights as stockholders until such holders exercise their pre-funded warrants and acquire shares of our common stock.

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

Significant holders or beneficial owners of our common stock may not be permitted to exercise the pre-funded warrants that they hold.

Significant holders or beneficial owners of our common stock may not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to such exercise, would cause (i) the aggregate number of shares of our common stock beneficially owned by such holder (together with its affiliates) to exceed a certain percentage of the number of shares of our

common stock outstanding immediately after giving effect to the exercise; or (ii) the combined voting power of our securities beneficially owned by such holder (together with its affiliates) to exceed that same percentage of the combined voting power of all of our securities outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants and subject to such holder's rights under the pre-funded warrants to increase or decrease such percentage to any other percentage not in excess of 19.99% upon at least 61 days' prior notice from the holder to us. As a result, you may not be able to exercise your pre-funded warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such a circumstance, you could seek to sell your pre-funded warrants to realize value, but you may be unable to do so in the absence of an established trading market.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately \$\) million, or approximately \$\) million if the underwriters exercise in full their option to purchase additional shares of common stock, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We will receive nominal proceeds, if any, from the exercise of the pre-funded warrants.

We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, to fund ongoing and planned clinical and preclinical development of our product candidates, including ongoing clinical trials for 4D-150, 4D-710, 4D-310, 4D-125, and 4D-110 and to the fund further development and expansion of our pipeline, including to complete lead optimization and IND-enabling studies for other research candidates. We currently intend to use any remaining amounts for working capital and for other general corporate purposes.

We may also use a portion of the remaining net proceeds and our existing cash and cash equivalents to in-license, acquire or invest in complementary businesses, technologies, products or assets. However, we currently have no agreements or commitments to complete any such transaction.

Based on our current operating plan, we estimate that our existing cash, cash equivalents and marketable securities, together with the anticipated net proceeds from this offering, will be sufficient to fund our operating expenses and capital expenditure requirements at least into the first half of 2027.

The amounts and timing of our actual expenditures and the extent of our research and development activities may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from any preclinical or clinical trials we may commence in the future, our ability to take advantage of expedited programs or to obtain regulatory approval for any other product candidates we may identify and pursue, the timing and costs associated with the manufacture and supply of any other product candidates we may identify and pursue for clinical development or commercialization, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending the application of the net proceeds as set forth above, we intend to invest the net proceeds of this offering in a variety of capital-preservation investments, including interest-bearing, investment-grade securities, certificates of deposit or government securities.

DILUTION

If you invest in our common stock or pre-funded warrants, your interest will be diluted immediately to the extent of the difference between the public offering price per share of common stock or pre-funded warrant you will pay in this offering and the as adjusted net tangible book value per share of our common stock after this offering. Net tangible book value per share of common stock represents our total tangible assets less total liabilities, divided by the number of shares of common stock outstanding.

Our net tangible book value as of September 30, 2023 was \$329.9 million, or \$7.72 per share. 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, 2023. 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 as adjusted net tangible book value per share of our common stock immediately after giving effect to this offering.

After giving effect to our issuance and sale of shares of common stock and pre-funded warrants to purchase shares of common stock in this offering, at the public offering price of \$ per share of common stock and \$ per pre-funded warrant, including shares of common stock issuable upon exercise of the pre-funded warrants but excluding any resulting accounting impact associated therewith, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as-adjusted net tangible book value as of September 30, 2023 would have been \$ million, or \$ per share. This represents an immediate increase in net tangible book value of \$ per share to existing stockholders and an immediate dilution to new investors purchasing shares of common stock and pre-funded warrants in this offering of \$ per share, as illustrated in the following table:

| Public offering price per share | | \$ |
|--|--------|----|
| Historical net tangible book value per share at September 30, 2023 | \$7.72 | |
| Increase in net tangible book value per share attributable to new investors purchasing | | |
| shares of common stock and pre-funded warrants in this offering | | |
| As adjusted net tangible book value per share after giving effect to this offering | | \$ |
| Dilution per share to new investors participating in this offering | | \$ |

If the underwriters exercise their option to purchase an additional shares of common stock in full, at the public offering price of \$ per share of common stock, the as adjusted net tangible book value per share after giving effect to this offering would be \$ per share of common stock, representing an immediate increase in net tangible book value (including shares of common stock issuable upon exercise of the pre-funded warrants but excluding any resulting accounting impact associated therewith, and after deducting underwriting discounts and commissions and estimated expenses payable by us) to existing stockholders of \$ per share of common stock and immediate dilution in net tangible book value of \$ per share of common stock to new investors.

The foregoing table and calculations (other than net tangible book value) exclude the following shares as of September 30, 2023:

- 6,021,383 shares of our common stock issuable upon the exercise of stock options to purchase common stock that were outstanding as of September 30, 2023, with a weighted-average exercise price of \$17.19 per share;
- 53,669 shares of our common stock issuable upon the exercise of outstanding warrants, with a weighted-average exercise price of \$11.47 per share;
- 2,487,602 shares of our common stock issuable upon the exercise of stock options to purchase common stock that were granted after September 30, 2023, with a weighted-average exercise price of \$14.15 per share;
- 181,181 shares of our common stock subject to the settlement of restricted stock units ("RSUs") that were granted after September 30, 2023;
- 3,181,340 shares of our common stock reserved for issuance pursuant to future awards under our 2020 Equity Incentive Award Plan (the "2020 Plan"), which number is prior to the reduction of the shares of common stock subject to the stock options and RSUs that were granted after September 30, 2023, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan;
- 380,636 shares of our common stock reserved for issuance pursuant to future awards under our 2020 Employee Stock Purchase Plan (the "ESPP"), as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan; and
- no shares of our common sold after September 30, 2023 under an Open Market Sale Agreement (the "Sale Agreement") with Jefferies LLC as sales agent, pursuant to which we may offer and sell shares of our common stock, from time to time, with aggregate gross sales proceeds of up to \$100.0 million as an "at-the-market" offering under the Securities Act, of which we have agreed not to make any sales under the Sale Agreement until the expiration or waiver of the 60-day lock-up period applicable to us and as described in the section titled "Underwriting" in the Preliminary Prospectus Supplement.

DESCRIPTION OF PRE-FUNDED WARRANTS

The following is a brief summary of certain terms and conditions of the pre-funded warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the pre-funded warrants.

Form

The pre-funded warrants will be issued as individual warrant agreements to the purchasers. The form of pre-funded warrant will be filed as an exhibit to a Current Report on Form 8-K that we will file with the SEC.

Term

The pre-funded warrants will not expire until they are fully exercised.

Exercisability

The pre-funded warrants are exercisable at any time until they are fully exercised. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice and payment of the exercise price. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. The holder of the pre-funded warrants may also satisfy its obligation to pay the exercise price through a "cashless exercise," in which the holder receives the net value of the pre-funded warrant in shares of common stock determined according to the formula set forth in the pre-funded warrant.

Exercise Limitations

We may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to such exercise, would cause: (i) the aggregate number of shares of common stock beneficially owned by such holder (together with its affiliates) to exceed 4.99% or 9.99%, as applicable, of the number of shares of common stock outstanding immediately after giving effect to the exercise; or (ii) the combined voting power of our securities beneficially owned by such holder (together with its affiliates) to exceed 4.99% or 9.99%, as applicable, of the combined voting power of all of our securities outstanding immediately after giving effect to the exercise, as such percentage ownership is set forth in accordance with the terms of the pre-funded warrants. However, any holder of a pre-funded warrant may increase or decrease such percentage upon at least 61 days' prior written notice from the holder to us, provided that such percentage may not be in excess of 19.99% (if exceeding such percentage would result in a change of control under Nasdaq Listing Rule 4635(b) or any successor rule).

Antidilution and Other Adjustments

The exercise price of the pre-funded warrants for shares of common stock to be issued upon the exercise of the pre-funded warrants is \$0.0001 per share. The exercise price of the pre-funded warrants and the number of shares of common stock issuable upon exercise of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our shares of common stock, as well as upon any distribution of assets, including cash, stock or other property, to our stockholders. The exercise price of the pre-funded warrants will not be adjusted below the par value per share of our common stock.

Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing

We do not intend to list the pre-funded warrants on the Nasdaq Global Select Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions

Upon the consummation of a fundamental transaction (as described in the pre-funded warrants, and generally including any reorganization, recapitalization or reclassification of shares 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 the outstanding shares of our common stock, or any person or group becoming the beneficial owner of 50% of the voting power of the outstanding shares of our common stock), the holders of the pre-funded warrants will be entitled to receive, upon exercise of the pre-funded warrants, the kind and amount of securities, cash or other property that such holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction, without regard to any limitations on exercise contained in the pre-funded warrants. Notwithstanding the foregoing, in the event of a fundamental transaction where the consideration consists solely of cash, solely of marketable securities or a combination of cash and marketable securities, then each pre-funded warrant shall automatically be deemed to be exercised in full in a cashless exercise effective immediately prior to and contingent upon the consummation of such fundamental transaction.

No Rights as a Stockholder

Except by virtue of such holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of shares of our common stock, including any voting rights, until such holder exercises the pre-funded warrant.

UNDERWRITING

The underwriters will purchase the pre-funded warrants pursuant to the underwriting agreement described in the Preliminary Prospectus Supplement on terms generally consistent with those applicable to the shares of common stock being sold in the offering. The per share underwriting discounts and commissions for the pre-funded warrants will be equal to the per share underwriting discounts and commissions on the shares of common stocksold in the offering.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following discussion is a summary of the material U.S. federal income tax consequences of the purchase, ownership and disposition of the shares of common stock and pre-funded warrants, which we refer to collectively as the "Securities," issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or foreign tax laws are not discussed. This discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the "IRS") in effect as of the date of this offering. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a holder of the Securities. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position regarding the tax consequences of the purchase, ownership and disposition of the Securities.

This discussion is limited to holders that hold the Securities as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a holder's particular circumstances, including the impact of the alternative minimum tax or the unearned income Medicare contribution tax. In addition, it does not address consequences relevant to holders subject to particular rules, including, without limitation:

- U.S. expatriates and certain former citizens or long-term residents of the United States;
- persons holding the Securities as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies" and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell the Securities under the constructive sale provisions of the Code;
- persons who hold or receive the Securities pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to the stock being taken into account in an "applicable financial statement" (as defined in the Code);
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds; and
- · tax-qualified retirement plans.

If an entity treated as a partnership for U.S. federal income tax purposes holds the Securities, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding the Securities and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT INTENDED AS LEGAL OR TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE SECURITIES ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Treatment of Pre-funded Warrants

Although not free from doubt, a pre-funded warrant should be treated as a share of our common stock for U.S. federal income tax purposes, and a holder of pre-funded warrants should generally be taxed in the same manner as a holder of common stock, as described below. Accordingly, no gain or loss should be recognized (other than with respect to cash paid in lieu of a fractional share) upon the exercise of a pre-funded warrant (except in the case of a cashless exercise, the treatment of which for U.S. federal income tax purposes is not clear) and, upon exercise, the holding period of a pre-funded warrant should carry over to the share of common stock received. Similarly, the tax basis of the pre-funded warrant should carry over to the share of common stock received upon exercise, increased by the exercise price of \$0.0001. The discussion below assumes the characterization described above is respected for U.S. federal income tax purposes. Holders should consult their tax advisors regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering (including alternative characterizations).

Tax Considerations Applicable to U.S. Holders

Definition of a U.S. Holder

For purposes of this discussion, a "U.S. holder" is any beneficial owner of the Securities that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more United States persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

We do not anticipate paying any cash dividends in the foreseeable future. However, if we do make distributions on our common stock, such distributions of cash or property will constitute dividends to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Dividends received by a corporate U.S. holder may be eligible for a dividends received deduction, subject to applicable limitations. Dividends received by certain non-corporate U.S. holders, including individuals, are generally taxed at the lower applicable capital gains rate provided certain holding period and other requirements are satisfied. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital and first be applied against and reduce a U.S. holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of our common stock.

Sale or Other Taxable Disposition of Common Stock or Pre-funded Warrants

Upon the sale, exchange or other taxable disposition of the Securities, a U.S. holder generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon the sale, exchange or other taxable disposition and (ii) such U.S. holder's adjusted tax basis in the common stock or pre-funded warrant. Such capital gain or loss will be long- term capital gain or loss if the U.S. holder's holding period in such common stock or pre-funded warrant is more than one year at the time of the sale, exchange or other taxable disposition. Long-term capital gains recognized by certain non-corporate U.S. holders, including individuals, generally will be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to certain limitations.

Constructive Dividends on Pre-funded Warrants

A holder of a pre-funded warrant may, in some circumstances, be deemed to have received a distribution subject to U.S. federal income tax as a result of an adjustment or the non-occurrence of an adjustment to the exercise price or number of shares of common stock issuable upon exercise of the pre-funded warrant. U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to the pre-funded warrants.

Information Reporting and Backup Withholding

A U.S. holder may be subject to information reporting and backup withholding when such holder receives payments on the common stock or pre-funded warrant (including constructive dividends) or receives proceeds from the sale or other taxable disposition of common stock or pre-funded warrants. Certain U.S. holders are exempt from backup withholding, including corporations and certain tax-exempt organizations. A U.S. holder will be subject to backup withholding if such holder is not otherwise exempt and such holder:

- a) fails to furnish the holder's taxpayer identification number, which for an individual is ordinarily his or her social security number;
- b) furnishes an incorrect taxpayer identification number;
- c) is notified by the IRS that the holder previously failed to properly report payments of interest or dividends; or fails to certify under penalties of perjury that the holder has furnished a correct taxpayer identification number and that the IRS has not notified the holder that the holder is subject to backup withholding.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS. U.S. holders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

Tax Considerations Applicable to Non-U.S. Holders

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of the Securities that is neither a U.S. holder nor an entity treated as a partnership for U.S. federal income tax purposes.

Distributions

We do not anticipate paying any cash dividends in the foreseeable future. However, if we do make distributions on our common stock, such distributions of cash or property on our common stock will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a non-U.S. holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of our common stock. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of the withholding rules discussed below we or the applicable withholding agent may treat the entire distribution as a dividend.

Dividends paid to a non-U.S. holder of our common stock that are not effectively connected with the non-U.S. holder's conduct of a trade or business within the United States will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty).

Non-U.S. holders will be entitled to a reduction in or an exemption from withholding on dividends as a result of either (a) an applicable income tax treaty or (b) the non-U.S. holder holding our common stock in connection with the conduct of a trade or business within the United States and dividends being effectively connected with that trade or business. To claim such a reduction in or exemption from withholding, the non-U.S. holder must provide the applicable withholding agent with a properly executed (a) IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) claiming an exemption from or reduction of the withholding tax under the benefit of an income tax treaty between the United States and the country in which the non-U.S. holder resides or is established, or (b) IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the United States, as may be applicable. These certifications must be provided to the applicable withholding agent prior to the payment of dividends. Non-U.S. holders that do not timely provide the applicable withholding agent with the required certification, but that qualify for a reduced rate under an applicable income tax treaty, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), then, although exempt from U.S. federal withholding tax (provided the non-U.S. holder provides appropriate certification, as described above), the non-U.S. holder will be subject to U.S. federal income tax on such dividends on a net income basis at the regular rates applicable to United States persons. In addition, a non-U.S. holder that is a corporation may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits for the taxable year that are attributable to such dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Exercise of Pre-funded Warrants

A non-U.S. holder generally will not be subject to U.S. federal income tax on the exercise of pre-funded warrants into shares of common stock. However, if a cashless exercise of pre-funded warrants results in a taxable exchange, as described in "—*Treatment of Pre-funded Warrants*," the rules described below under "—*Sale or Other Disposition of Common Stock or Pre-funded Warrants*" would apply.

Sale or Other Disposition of Common Stock or Pre-funded Warrants

Subject to the discussions below on backup withholding and foreign accounts, a non-U.S. holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock or pre-funded warrants unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock or pre-funded warrants constitute U.S. real property interests ("USRPIs"), by reason of our status as a U.S. real property holding corporation ("USRPHC"), for U.S. federal income tax purposes.

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular rates applicable to United States persons. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

A non-U.S. holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain realized upon the sale or other taxable disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the United States) provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we are not currently and do not anticipate becoming a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our USRPIs relative to the fair market value of our other business assets and our non-U.S. real property interests, however, there can be no assurance we are not a USRPHC or will not become one in the future.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Constructive Dividends on Pre-funded Warrants

A holder of pre-funded warrants can be treated as receiving deemed payment of a taxable dividend under certain circumstances as a result of an adjustment or the non-occurrence of an adjustment to the exercise price or number of shares of common stock issuable upon exercise of the pre-funded warrant. Any resulting withholding tax attributable to deemed dividends may be collected from other amounts payable or distributable to the non-U.S. holder. Non-U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to the pre-funded warrants.

Information Reporting and Backup Withholding

A non-U.S. holder will not be subject to backup withholding with respect to distributions on our common stock or pre-funded warrants (including constructive dividends), provided the applicable withholding agent does not have actual knowledge or reason to know such holder is a United States person and the holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or other applicable certification. However, information returns generally will be filed with the IRS in connection with any distributions (including deemed distributions) made on our common stock or pre-funded warrants to the non-U.S. holder, regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

Information reporting and backup withholding may apply to the proceeds of a sale or other taxable disposition of our common stock or pre-funded warrants within the United States, and information reporting may (although backup withholding generally will not) apply to the proceeds of a sale or other taxable disposition of our common stock or pre-funded warrants outside the United States conducted through certain U.S.-related financial intermediaries, in each case, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on IRS Form W-8BEN or W-8BEN-E, or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a United States person) or such owner otherwise establishes an exemption. Proceeds of a disposition of our common stock or pre-funded warrants conducted through a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act ("FATCA")) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends (including deemed dividends) paid on the Securities, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of the Securities paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends (including deemed dividends). Because we may not know the extent to which a distribution (including a deemed distribution) is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we or the applicable withholding agent may treat the entire distribution as a dividend. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of the Securities beginning on January 1, 2019, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in the Securities.

GENERAL

Additional conforming changes are hereby made to the Preliminary Prospectus Supplement to reflect the changes described in this free writing prospectus. All terms of the Preliminary Prospectus Supplement applicable to our shares of our common stock will be applicable to the shares of common stock underlying the pre-funded warrants upon issuance.

4D Molecular Therapeutics, Inc. has filed a registration statement (including a preliminary prospectus supplement dated February 5, 2024 and the accompanying base prospectus) with the SEC for the offering to which this communication relates, which registration statement became automatically effective upon its filing on February 5, 2024. Before you invest, you should read the preliminary prospectus supplement and the accompanying base prospectus and other documents 4D Molecular Therapeutics, Inc. has filed with the SEC for more complete information about 4D Molecular Therapeutics, Inc. and the offering. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, copies may be obtained by contacting: Goldman Sachs & Co. LLC, Attention: Prospectus Department, 200 West Street, New York, New York 10282, by telephone at (866) 471-2526 or by email at prospectus-ny@ny.email.gs.com; BofA Securities, NC1-022-02-25, 201 North Tryon Street, Charlotte, North Carolina 28255-0001, Attention: Prospectus Department, or by email at dg.prospectus_requests@bofa.com; Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, New York, New York 10022, by telephone at (877) 821-7388 or by email at Prospectus_Department@Jefferies.com; Barclays Capital Inc., c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, by telephone at (888) 603-5847 or by email at Barclaysprospectus@broadridge.com.