



Common Stock

Pre-funded Warrants to Purchase Shares of Common Stock

This free writing prospectus relates only to the public offering described below and should be read together with the preliminary prospectus supplement dated June 8, 2026, or the Preliminary Prospectus Supplement, including the documents incorporated by reference therein, and the accompanying base prospectus. This free writing prospectus supplements the Preliminary Prospectus Supplement 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 Tango Therapeutics, Inc. Except as otherwise indicated, all information in this free writing prospectus and the Preliminary Prospectus Supplement assumes no exercise of outstanding options, restricted stock units or pre-funded warrants, no exercise of the underwriters' option to purchase additional shares of our 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, including the documents incorporated by reference therein, and the accompanying base prospectus. 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, including the documents incorporated by reference therein, and the accompanying base prospectus, 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.

Common stock offered by us	\$500,000,000 of shares of our common stock.
Pre-funded warrants offered by us	<p>We are also offering, in lieu of common stock to certain purchasers who so choose, pre-funded warrants to purchase shares of our common stock. The purchase price of each pre-funded warrant equals the price per share at which the shares of our common stock are being sold in this offering, minus \$0.001, and the exercise price of each pre-funded warrant is \$0.001 per share. The pre-funded warrants do not expire, and each pre-funded warrant will be exercisable at any time after the date of issuance of such pre-funded warrant, 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 our common stock issuable upon exercise of the pre-funded warrants.</p> <p>The lock-up restrictions described in the Preliminary Prospectus Supplement under “Underwriting” will not apply to the issuance of shares of our 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.</p>
Underwriters’ option to purchase additional shares	We have granted the underwriters an option, exercisable for 30 days from the date of the Preliminary Prospectus Supplement, to purchase up to an additional \$75,000,000 of shares of our common stock at the public offering price, less underwriting discounts and commissions on the same terms as set forth in the Preliminary Prospectus Supplement.
Common stock to be outstanding immediately after this offering	_____ shares (or _____ shares if the underwriters exercise their option to purchase additional shares in full), assuming no exercise of the pre-funded warrants included in this offering.
Use of proceeds	<p>We estimate that the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ _____ million, or \$ _____ million if the underwriters exercise their option to purchase additional shares from us in full. This estimate excludes the proceeds, if any, from the exercise of the pre-funded warrants sold in this offering. We intend to use the net proceeds from this offering for general corporate purposes, including research and development expenses, expenses relating to our pivotal trial and preparation for the potential commercialization of one or more of our product candidates, general and administrative expenses and capital expenditures. See “Use of Proceeds”.</p>
Risk factors	Investing in our securities involves a high degree of risk. See “Risk Factors” below, as well as “Risk factors” beginning on page S-8 of the Preliminary Prospectus Supplement and other information included and incorporated by reference into the Preliminary Prospectus Supplement and the accompanying prospectus, for a discussion of factors you should consider carefully before deciding to purchase any shares of our common stock.

Nasdaq Global Market symbol and trading

TNGX.

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 the Nasdaq Global Market 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

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

Purchasers of our common stock or pre-funded warrants in this offering will experience immediate dilution in the net tangible book value of the common stock or the underlying pre-funded warrants purchased in this offering because the price per share of common stock in this offering is substantially higher than the net tangible book value per share of our common stock outstanding immediately after this offering. Our net tangible book value as of March 31, 2026, was approximately \$391.5 million, or \$2.72 per share of our common stock. If you purchase shares of common stock or pre-funded warrants in this offering, you will suffer immediate and substantial dilution of \$ per share with respect to the net tangible book value of the common stock (assuming that no pre-funded warrants are exercised). See “Dilution” in this free writing prospectus for a detailed discussion of the dilution you will incur if you purchase shares or pre-funded warrants in this offering.

Sales of a substantial number of shares of our common stock, including any shares issuable upon exercise of any pre-funded warrants, or pre-funded warrants in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock, including any shares issuable upon exercise of any pre-funded warrants, pre-funded warrants or other equity-related securities in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and the shares of common stock offered hereby will be, freely tradable without restriction or further registration under the Securities Act, unless these shares are owned or purchased by “affiliates” as that term is defined in Rule 144 under the Securities Act. We, along with our directors and executive officers, have agreed that for a period of 60 days after the closing of this offering, subject to specified exceptions, we or they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock.

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

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

Holders of the pre-funded warrants will have no rights as common stockholders until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of the pre-funded warrants, you will have no rights with respect to our common stock issuable upon exercise of the pre-funded warrants, including the right to receive dividend payments, vote or respond to tender offers. Upon exercise of your pre-funded warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

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

A holder (together with its affiliates and other attribution parties) may not exercise any portion of a pre-funded warrant to the extent that after giving effect to such exercise, the holder would own more than 4.99% or 9.99% of our outstanding common stock immediately after exercise, which percentage may be changed at the holder’s election to a higher or lower percentage not in excess of 19.99% upon 61 days’ notice to us, subject to the terms of the pre-funded warrants. 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 and due to applicable transfer restrictions.

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 \$0.001 per share of common stock underlying such pre-funded 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 of additional funds (if any) upon the exercise of the pre-funded warrants.

If we do not maintain a current and effective registration statement relating to the shares of our common stock issuable upon exercise of the pre-funded warrants, holders will only be able to exercise such pre-funded warrants on a “cashless basis.”

If we do not maintain a current and effective registration statement relating to the shares of our common stock issuable upon exercise of the pre-funded warrants at the time that holders wish to exercise such pre-funded warrants, they will only be able to exercise them on a “cashless basis” provided that an exemption from registration is available. As a result, the number of shares of our common stock that holders will receive upon exercise of the pre-funded warrants will be fewer than it would have been had such holder exercised the warrant for cash, and holders may be limited in their ability to immediately sell shares upon exercise subject to volume or other securities law limitations. Further, if an exemption from registration is not available, holders would not be able to exercise on a cashless basis and would only be able to exercise their pre-funded warrants for cash if a current and effective registration statement relating to the shares of our common stock issuable upon exercise of the pre-funded warrants is available.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately \$ million (or approximately \$ million if the underwriters exercise in full their option to purchase additional shares), after deducting the 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 intend to use the net proceeds from this offering for general corporate purposes, including research and development expenses, expenses relating to our pivotal trial and preparation for the potential commercialization of one or more of our product candidates, general and administrative expenses and capital expenditures. Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash, cash equivalents and investments, will enable us to fund our operating expenses and capital expenditure requirements into 2030.

The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures will depend on numerous factors, including the factors described under “Risk Factors” in this free writing prospectus and under “Risk factors” in the Preliminary Prospectus Supplement, the accompanying prospectus and in the documents incorporated by reference herein, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds. Pending the uses described above, we plan to invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DILUTION

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

The net tangible book value of our common stock as of March 31, 2026 was approximately \$391.5 million, or approximately \$2.72 per share of common stock based upon 144,162,543 shares outstanding. Net tangible book value per share is equal to our total tangible assets (total assets less intangible assets), less our total liabilities, divided by the total number of shares of common stock outstanding as of March 31, 2026.

Net tangible book value dilution per share to investors participating in this offering 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 common stock immediately after completion of this offering.

After giving effect to the sale by us of (i) shares of our common stock in this offering, at the offering price of \$ _____ per share and (ii) pre-funded warrants to purchase shares of common stock at the offering price of \$ _____ per pre-funded warrant (which equals the public offering price of the common stock at which shares of our common stock are being sold to the public in this offering less the \$0.001 per share exercise price of each such pre-funded warrant) (excluding shares of common stock issuable upon exercise of the pre-funded warrants, any proceeds which may be received upon exercise of the pre-funded warrants or any resulting accounting associated with the exercise of the pre-funded warrants), and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2026 would have been approximately \$ _____ million, or \$ _____ per share of our common stock. This represents an immediate increase in net tangible book value of \$ _____ per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of \$ _____ per share to investors participating in this offering.

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

Offering price per share		\$
Net tangible book value per share as of March 31, 2026	\$ 2.72	
Increase in net tangible book value per share attributable to this offering		
As adjusted net tangible book value per share after giving effect to this offering		
Dilution in net tangible book value per share to new investors in this offering		\$

Assuming the pre-funded warrants were immediately and fully exercised, this would result in an as adjusted net tangible book value, after giving effect to this offering and exercise of the pre-funded warrants, of \$ _____ per share. This represents an increase in net tangible book value of \$ _____ per share to existing stockholders and dilution in net tangible book value per share of \$ _____ to investors participating in this offering.

Assuming the underwriters exercise their option to purchase _____ additional shares of our common stock in full at the public offering price of \$ _____ per share, the as adjusted net tangible book value will increase to \$ _____ per share, representing an immediate increase in net tangible book value of \$ _____ per share of our common stock to existing stockholders and an immediate dilution of \$ _____ per share to investors participating in this offering.

The information above is based upon 144,162,543 shares of our common stock outstanding as of March 31, 2026. The information above excludes:

- 24,100,505 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2026, at a weighted average exercise price of \$7.91 per share;
- 1,881,055 shares of common stock issuable upon the vesting of restricted stock units as of March 31, 2026;
- 8,558,351 shares of common stock available for future issuance under the 2021 Plan as of March 31, 2026, as well as any automatic increases in the number of shares of common stock reserved for issuance under the 2021 Plan;
- 4,383,122 shares of common stock available for future issuance under the ESPP as of March 31, 2026, as well as any automatic increases in the number of shares of common stock reserved for issuance under the ESPP;
- 1,767,162 shares of common stock available for future issuance under the 2023 Inducement Plan as of March 31, 2026;
- 1,358,620 shares of our common stock issuable upon the exercise of stock options granted subsequent to March 31, 2026, through June 5, 2026 at a weighted-average exercise price of \$21.40 per share;
- 248,720 shares of our common stock issuable upon the vesting and settlement of restricted stock units granted subsequent to March 31, 2026, through June 5, 2026; and
- 3,226,458 shares of common stock issuable upon the exercise of the pre-funded warrants outstanding as of March 31, 2026, with an exercise price of \$0.001 per pre-funded warrant.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the pre-funded warrants we are offering in lieu of shares of our common stock to certain investors, outstanding options, restricted stock units or pre-funded warrants described above after March 31, 2026 and that the underwriters do not exercise their option to purchase up to _____ of additional shares of our common stock.

In addition, we may choose to raise additional capital in the future through the sale of equity or convertible debt securities 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 any of our outstanding options are exercised, shares of common stock are issued upon the vesting and settlement of our restricted stock units outstanding, new equity awards are granted under our equity incentive plans, additional shares of common stock are issued pursuant to the Sales Agreement with Leerink Partners LLC or we otherwise issue additional shares of common stock or other equity or convertible debt securities in the future, there may be further dilution to investors participating in this offering.

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 investors. The form of pre-funded warrant will be filed as an exhibit to our Current Report on Form 8-K that we expect to file with the SEC in connection with this offering.

Term

The pre-funded warrants will not expire.

Exercisability

The pre-funded warrants are exercisable at any time between their original issuance and their expiration. 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 by payment in full of the exercise price in immediately available funds for the number of shares of common stock purchased upon such exercise. As an alternative to payment in immediately available funds, the holder may elect to exercise the pre-funded warrant through 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. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the last trade price of our common stock on the exercise date.

Exercise limitations

Under the pre-funded warrants, 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, (i) if immediately prior to exercise the holder (together with its affiliates) beneficially owns an aggregate number of shares of our common stock greater than 4.99% or 9.99%, as applicable, of the number of shares of our common stock outstanding immediately before giving effect to the exercise of any pre-funded warrant or (ii) to the extent that immediately following exercise, the holder (together with its affiliates) would beneficially own in excess of 4.99% or 9.99%, as applicable, of the number of shares of common stock outstanding immediately after giving effect to the issuance of such shares of common stock, and without taking account any other pre-funded warrants. However, any holder may 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.

Exercise price

The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.001 per share of common stock. The exercise price of the pre-funded warrants and the number of shares of our 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 common stock. The exercise price will not be adjusted below the par value of our common stock.

Transferability

Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent. The pre-funded warrants will be held in definitive form by the purchasers. The ownership of the pre-funded warrants and any transfers of the pre-funded warrants will be registered in a warrant register maintained by us or our transfer agent.

Exchange listing

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

Warrant agent

We will initially serve as the warrant agent under the pre-funded warrants.

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 our common stock, the sale, transfer or other disposition of all or substantially all of our assets, our consolidation or merger with or into another person in which we are not the surviving entity, 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 of our outstanding common stock), the holders of the pre-funded warrants will be entitled to receive, upon exercise of the pre-funded warrants, the same 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 our common stock, including any voting rights, until such holder exercises the pre-funded warrant. Additionally, a holder is generally not entitled to receive distributions paid with respect to common stock prior to the exercise of the pre-funded warrant, and instead such distributions are expected to be held in abeyance for the holder until such pre-funded warrant is exercised or the ownership limitations would not be exceeded, at which time such holder shall be entitled to receive such distributions.

CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

Although it is not entirely free from doubt, because the exercise price of the pre-funded warrants is a nominal amount 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 a pre-funded warrant should generally be taxed in the same manner as a holder of common stock. Accordingly, no gain or loss should be recognized upon the exercise of a pre-funded warrant and, upon exercise, the holding period of a pre-funded warrant (other than in respect of cash received in lieu of a fractional share) should carry over to the share of common stock received. Similarly, the tax basis of a pre-funded warrant should carry over to the share of common stock received upon exercise, increased by the exercise price (if applicable). Our position with respect to the characterization of pre-funded warrants is not binding on the Internal Revenue Service, or the IRS, and the IRS may treat the pre-funded warrants as warrants to acquire our common stock and, if so, the amount and character of your gain with respect to an investment in our pre-funded warrants could differ from what is described herein. Each holder of pre-funded warrants should consult his, her or its own tax advisor regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering (including potential alternative characterizations).

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 underwriting discounts and commissions per pre-funded warrant will be equal to the underwriting discounts and commissions per share of common stock sold in the offering. The underwriters have not been engaged to act as warrant agent for the pre-funded warrants or to act as underwriter or agent or otherwise participate in the issuance of the shares of our common stock upon the exercise of the pre-funded warrants.

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.

Tango Therapeutics, Inc. has filed a registration statement (including a preliminary prospectus supplement dated June 8, 2026 and the accompanying base prospectus) with the Securities and Exchange Commission, or the SEC, for the offering to which this communication relates. Before you invest, you should read the preliminary prospectus supplement and the accompanying base prospectus and other documents Tango Therapeutics, Inc. has filed with the SEC for more complete information about Tango Therapeutics, Inc. and the offering. You may obtain these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, copies may be obtained by contacting: J.P. Morgan Securities LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, or by email at prospectus-efi@jpmchase.com and postsalemanualrequests@broadridge.com; Leerink Partners LLC, Attention: Syndicate Department, 53 State Street, 40th Floor, Boston, Massachusetts 02109; by telephone at (800) 808-7525 ext. 6105; or by email at syndicate@leerink.com; Cantor Fitzgerald & Co., Attention: Capital Markets, 110 East 59th Street, 6th Floor, New York, NY 10022, or by e-mail at prospectus@cantor.com; and Stifel, Nicolaus & Company, Incorporated, Attention: Syndicate, One Montgomery Street, Suite 3700, San Francisco, CA 94104, or by telephone at (415) 364-2720, or by email at syndprospectus@stifel.com.