

The information in this preliminary prospectus supplement and the accompanying prospectus, relating to an effective registration statement under the Securities Act of 1933, as amended, is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, Dated February 13, 2023

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated April 9, 2021)



Shares of Common Stock

Warrants to Purchase up to

Shares of Common Stock

Pre-funded Warrants to Purchase up to

Shares of Common Stock

We are offering _____ shares of common stock, pre-funded warrants to purchase _____ shares of common stock and warrants to purchase _____ shares of common stock. Each of the common stock and pre-funded warrants will be sold in combination with an accompanying warrant to purchase _____ shares of common stock. The combined purchase price for each share of common stock and accompanying warrant is \$ _____, and for each pre-funded warrant and accompanying warrant is \$ _____.

The pre-funded warrant will have either (i) an exercise price of \$0.001 per share, which is equal to the par value per share of common stock being sold in this offering, or (ii) a cashless exercise for a net number of shares of common stock determined according to the formula set forth in the pre-funded warrant. The pre-funded warrants will be exercisable upon issuance and will not expire. The warrants will have (i) an exercise price of \$ _____ per share of common stock, (ii) be eligible for cashless exercise for a net number of shares of common stock determined according to the formula set forth in the warrant or (iii) an alternate cashless option (beginning on or after the earlier of (a) the thirty-day anniversary of the date of the underwriting agreement and (b) the date on which the aggregate composite trading volume of our common stock beginning on the date of the underwriting agreement exceeds _____ shares), to receive an aggregate number of shares equal to the product of (x) the aggregate number of shares of common stock that would be issuable upon a cash exercise and (y) _____. The warrants will be exercisable upon issuance and will expire _____. See "Description of the Pre-Funded Warrants and the Warrants."

The shares of common stock and pre-funded warrants and their accompanying warrants are immediately separable and will be issued separately, but must be purchased together in this offering. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon the exercise of the pre-funded warrants and the warrants.

The common stock is listed on the Nasdaq Global Market under the symbol "TTOO." On February 10, 2023, the last reported sale price of the common stock on the Nasdaq Global Market was \$1.43 per share. There is no established trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to list the warrants on any securities exchange or automated quotation system.

Investing in our securities involves risks. See "[Risk Factors](#)" beginning on page S-7.

	Per Share and Accompanying Warrant	Per Pre-funded Warrant Accompanying Warrant	Total
Price to the public	\$ _____	\$ _____	\$ _____
Underwriting discounts and commissions(1)	\$ _____	\$ _____	\$ _____
Proceeds, before expenses, to us(2)	\$ _____	\$ _____	\$ _____

- (1) See "Underwriting" for additional disclosure regarding underwriting discounts, commissions and estimated offering expenses.
- (2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the pre-funded warrants or warrants being issued in this offering.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Delivery of the shares of common stock, pre-funded warrants and warrants will be made on or about _____, 2023.

Craig-Hallum

The date of this prospectus supplement is _____, 2023.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is the prospectus supplement, including the documents incorporated by reference, which describes the specific terms of our common stock, pre-funded warrants and warrants we are offering. The second part, the accompanying prospectus, including the documents incorporated by reference, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, as well as the additional information described under “Where You Can Find More Information; Incorporation by Reference” of this prospectus supplement. These documents contain information you should consider when making your investment decision. This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses we may provide to you in connection with this offering. Neither we nor any of the underwriters have authorized any other person to provide you with any information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. We are offering to sell, and seeking offers to buy, the securities offered hereby only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the offering of the securities offered hereby in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of the securities offered hereby and the distribution of this prospectus supplement outside the United States. This prospectus supplement does 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 by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless otherwise indicated, information contained in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference, concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry’s future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors” in this prospectus supplement, the accompanying prospectus and in our SEC filings incorporated by reference into this prospectus supplement. These and other important factors could cause our future performance to differ materially from our assumptions and estimates. See “Special Note Regarding Forward-Looking Statements.”

When we refer to “T2 Biosystems,” “we,” “our,” “us” and the “Company” in this prospectus, we mean T2 Biosystems, Inc. and its consolidated subsidiaries, unless otherwise specified. When we refer to “you,” we mean the potential holders of the applicable series of securities.

This prospectus supplement also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus supplement appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information you should consider before investing in our securities. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including the section titled “Risk Factors” of this prospectus supplement and the financial statements and related notes and the other information that we incorporate by reference into this prospectus supplement.

Our Company

We are an *in vitro* diagnostics company and leader in the rapid detection of sepsis-causing pathogens and antibiotic resistance genes. We are dedicated to improving patient care and reducing the cost of care by helping clinicians effectively treat patients faster than ever before. We have developed innovative products that offer a rapid, sensitive and simple alternative to existing diagnostic methodologies. We are developing a broad set of applications aimed at improving patient outcomes, reducing the cost of healthcare, and lowering mortality rates by helping medical professionals make earlier targeted treatment decisions. Our technology enables rapid detection of pathogens, biomarkers and other abnormalities in a variety of unpurified patient sample types, including whole blood, plasma, serum, saliva, sputum and urine, and can detect cellular targets at limits of detection as low as one colony forming unit per milliliter, or CFU/mL. We are currently targeting a range of critically underserved healthcare conditions, focusing initially on those for which a rapid diagnosis will serve an important dual role – saving lives and reducing costs. Our current development efforts primarily target sepsis, which is an area of significant unmet medical need in which existing therapies could be more effective with improved diagnostics.

Our primary commercial products include the T2Dx Instrument, the T2Candida Panel, the T2Bacteria Panel, the T2Resistance Panel, and the T2SARS-CoV-2 Panel.

Recent Developments

T2Biothreat Panel Clinical Trial Update

On February 13, 2023, we announced the completion of our clinical trial for the T2Biothreat Panel, with results that demonstrated very high sensitivity and specificity across all six targets. The T2Biothreat Panel is a fully-automated, direct-from-blood test designed to run on the T2Dx Instrument and simultaneously detects six biothreat pathogens identified as threats by the U.S. Centers for Disease Control and Prevention, including the organisms that cause anthrax (*Bacillus anthracis*), tularemia (*Francisella tularensis*), glanders (*Burkholderia mallei*), melioidosis (*Burkholderia pseudomallei*), plague (*Yersinia pestis*), and typhus (*Rickettsia prowazekii*).

Preliminary Financial Results for the Fourth Quarter and Full Year Ended December 31, 2022

We are currently finalizing our financial quarterly closing process for the three months and full year ended December 31, 2022. While complete financial information and operating data are not yet available, set forth below are certain preliminary unaudited estimates of the results of operations that we expect to report for our fourth quarter and full year of 2022. However, our actual results may differ materially from these estimates due to the completion of our financial closing procedures, final adjustments, completion of the audit of our 2022 financial statements and other developments that may arise between now and the time the financial results for the three months and full year ended December 31, 2022 are finalized.

The following are our preliminary estimates for the three months and fully year ended December 31, 2022:

- Achieved full year 2022 total revenue of \$22.3 million, including product revenue of \$11.3 million and research contribution revenue of \$11.0 million;
- Achieved fourth quarter total revenue of \$5.5 million, including product revenue of \$2.2 million and research contribution revenue of \$3.3 million;
- Achieved record full year 2022 sepsis and related product revenue globally, and record fourth quarter sepsis test revenue in the U.S.;
- Achieved record full year 2022 sepsis-driven T2Dx[®] Instruments, totaling 51 contracts, consisting of 27 from the U.S. and 24 from outside the U.S.;
- Advanced U.S. clinical trials for the T2Resistance Panel and T2Biothreat Panel;
- Initiated studies to expand the T2Bacteria Panel to include detection of *Acinetobacter baumannii*, the tenth most common pathogen that has a crude ICU mortality rate of 34.0% to 43.4%;
- Received FDA Breakthrough Device Designation and LymeX Award for the T2Lyme Panel, and announced plans to complete the development of, and commercialize, the T2Lyme Panel;
- Implemented expense reductions and cost of goods improvements during the second quarter of 2022, reducing our workforce and decreasing operating expenses by approximately 20%; and
- Cash, cash equivalents, and restricted cash totaled \$11.9 million as of December 31, 2022.

The estimates above represent the most current information available to management and do not present all necessary information indicative of our results of operations and financial condition for the quarter and fully year ended December 31, 2022. Our financial closing procedures for the quarter ended December 31, 2022 are not yet complete, and as a result there is a possibility that our final results will vary from these preliminary estimates. We currently expect that our final results will be consistent with the results described above. It is possible, however, that our final results will not be aligned with our current estimates. The estimates for the three months and full year ended December 31, 2022 are not necessarily indicative of any future period and should be read together with “Risk Factors,” “Special Note Regarding Forward-Looking Statements” and our financial statements and related notes included elsewhere in this prospectus supplement.

The preliminary financial data included in this prospectus supplement has been prepared by, and is the responsibility of, our management. Our auditor has not audited, reviewed, compiled or applied agreed-upon procedures with respect to the preliminary financial data. Accordingly, our auditor does not express an opinion or any other form of assurance with respect thereto.

Term Loan Amendment

On January 23, 2023, we entered into a waiver (the “Waiver”) to that certain Term Loan Agreement, dated as of December 30, 2016, by and among the Company, CRG Servicing LLC, as administrative agent and collateral agent (in such capacities, the “Administrative Agent”) and the lenders named therein (as amended from time to time to date, the “Loan Agreement”). Pursuant to the Waiver, the Administrative Agent and the lenders party to the Waiver, which constitute the Majority Lenders, waived certain Specified Events of Default as defined therein associated with our issuance of shares of Series A convertible preferred stock, par value \$0.001 per share, in August 2022 and the subsequent redemption thereof. We did not receive a notice of default under the Loan Agreement from the Administrative Agent in connection with these Specified Events of Default and there was no acceleration of the financial obligations thereunder.

Lease Termination

On September 8, 2021, we entered into a 10-year lease agreement (the “Lease”) with Farley White Concord Road, LLC (the “Landlord”), pursuant to which we leased approximately 70,125 square feet for occupancy and use as office, laboratory and commercial manufacturing space at 290 Concord Road, Billerica, Massachusetts (the “Premises”). On January 17, 2023, the Landlord sent us a Notice of Termination (the “Notice”) of the Lease. The Notice provides that the Landlord terminated the Lease because of our alleged failure to perform our obligations under the Lease in a timely manner and our alleged breach of the covenant of good faith and fair dealing. In connection with the Notice, on January 18, 2023, the Landlord filed a complaint in the Massachusetts Superior Court and has unilaterally deducted our \$1,000,000 security deposit for its alleged damages.

We disagree with the Landlord’s allegations and actions and believes that the Landlord is in breach of certain of its materials obligations under the Lease. We intend to vigorously defend ourselves and pursue all legal remedies available under applicable laws.

We believe we will continue to meet our current manufacturing needs with our Lexington and Wilmington, Massachusetts facilities.

Corporate Information

We were incorporated under the laws of the State of Delaware in 2006. Our principal executive offices are located at 101 Hartwell Ave., Lexington, MA 02421 and our telephone number is (781) 761-4646.

THE OFFERING

Common stock offered by us:	shares, plus shares of our common stock underlying the pre-funded warrants and warrants offered hereby.
Pre-funded warrants offered by us:	Pre-funded warrants to purchase shares of common stock, at either (i) an exercise price of \$0.001 per share, which is equal to the par value per share of common stock being sold in this offering, or (ii) a cashless exercise for a net number of shares of common stock determined according to the formula set forth in the pre-funded warrant. The pre-funded warrants will be exercisable upon issuance, subject to an ownership limitation, and will not expire. See “Description of the Pre-Funded Warrants and the Warrants.” This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise of the pre-funded warrants.
Warrants offered by us:	Warrants to purchase shares of common stock at (i) an exercise price of \$ per share of common stock, (ii) be eligible for cashless exercise for a net number of shares of common stock determined according to the formula set forth in the warrant or (iii) an alternate cashless option (beginning on or after the earlier of (a) the thirty-day anniversary of the date of the underwriting agreement and (b) the date on which the aggregate composite trading volume of our common stock beginning on the date of the underwriting agreement exceeds shares), to receive an aggregate number of shares equal to the product of (x) the aggregate number of shares of common stock that would be issuable upon a cash exercise and (y) . The warrants will be exercisable upon issuance, subject to an ownership limitation, until , . See “Description of the Pre-Funded Warrants and the Warrants.” Assuming all the warrants issued in this offering are exercised pursuant to the alternate cashless option, we will issue shares of common stock in connection with the exercise. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise of the warrants.
Common stock to be outstanding immediately after this offering:	shares, excluding shares issuable upon exercise of the pre-funded warrants and warrants offered hereby.
Use of Proceeds:	We estimate the net proceeds from this offering will be approximately \$ million (assuming none of the pre-funded warrants or warrants issued in this offering are exercised), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds of this offering for working capital and general corporate purposes. See “Use of Proceeds”.

Risk Factors:	See “Risk Factors” beginning on page S-7 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement for a discussion of factors that you should read and consider before investing in our securities.
Nasdaq Global Market symbol:	“TTOO”. There is no established trading market for the pre-funded warrants or the warrants and we do not expect a market to develop. In addition, we do not intend to list the pre-funded warrants or the warrants on any securities exchange or automated quotation system.

The number of shares of our common stock to be outstanding immediately after this offering is based on 7,050,849 shares of our common stock outstanding as of September 30, 2022 and excludes:

- 193,220 shares of our common stock issuable upon the exercise of stock options outstanding under the 2014 Incentive Award Plan, or the 2014 Plan, at a weighted average exercise price of \$137.64 per share, as of September 30, 2022;
- 224,302 restricted stock units that were unvested as of September 30, 2022;
- 52,676 shares of our common stock reserved for future issuance under our 2014 Plan as of September 30, 2022, as well as any automatic increases in the number of shares of our common stock reserved for future issuance;
- 84,501 shares of our common stock reserved for future issuance under our Inducement Award Plan, as amended;
- 29,181 shares of our common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan, or the 2014 ESPP, as of September 30, 2022, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under our 2014 ESPP;
- 1,291,235 shares of common stock sold pursuant to our sales agreement in an “at the market” offering subsequent to September 30, 2022;
- 21,944 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2022, with an exercise price of \$77.50 per share;
- 42,857 shares of our common stock issuable upon the exercise of warrants that will become exercisable on February 15, 2023 and were outstanding as of September 30, 2022, with an exercise price of \$7.50 per share, which are subject to potential full ratchet anti-dilution adjustment as a result of this offering; and
- 3,000 shares of Series A redeemable convertible preferred stock that were redeemed in October 2022.

Unless otherwise stated, all information contained in this prospectus supplement assumes no issuance or exercise of stock options or warrants after September 30, 2022, or the exercise of the pre-funded warrants or warrants offered hereby.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before investing in our securities, you should consider carefully the risks described below, together with the other information contained in this prospectus supplement, the accompanying prospectus or incorporated by reference herein or therein, including the risks and uncertainties discussed under “Risk Factors” in our SEC filings which are incorporated by reference into this prospectus supplement. If any of the risks incorporated by reference or set forth below occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of our securities could decline, and you may lose all or part of your investment.

If you purchase securities sold in this offering, you will experience immediate and substantial dilution in the net tangible book value of your shares.

The public offering price of shares of our common stock and accompanying warrants and our pre-funded warrants and accompanying warrants being offered hereby is higher than the net tangible book value per share of our outstanding common stock prior to this offering. Therefore, if you purchase securities in this offering, you will pay an effective price per share of common stock that exceeds our as adjusted net tangible book value per share after giving effect to this offering. See the section entitled “Dilution” for a more detailed description.

In the event the pre-funded warrants or warrants are exercised, you will experience additional dilution. To the extent that any options, warrants or other convertible security are exercised, any new equity awards are issued under our equity incentive plans, or we otherwise issue additional shares of common stock in the future (including shares issued in connection with strategic and other transactions), you will experience further dilution. 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.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled “Use of Proceeds,” and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. If we do not apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

Future sales or issuances of our common stock or convertible securities in the public markets, or the perception of such sales, could depress the trading price of our common stock.

The sale of a substantial number of shares of our common stock or other equity-related securities in the public markets, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We may sell large quantities of our common stock at any time pursuant to our existing sales agreement in an “at the market” offering. We cannot predict the effect that future sales of common stock or other equity-related securities would have on the market price of our common stock.

There is no public market for the warrants being offered hereby.

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

Except as otherwise provided in the pre-funded warrants or the warrants, holders of each of the pre-funded warrants and the warrants purchased in this offering will have no rights as common stockholders until such holders exercise their warrants and acquire our common stock.

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

We may not receive any additional funds upon the exercise of the pre-funded warrants or the warrants.

The pre-funded warrants and the warrants may be exercised by way of a cashless exercise, meaning that the holder may not pay a cash purchase price upon exercise, but instead would receive upon such exercise the net number of shares of our common stock determined according to the formula set forth in the applicable pre-funded warrants or warrants. Accordingly, we may not receive any additional funds upon the exercise of the pre-funded warrants or the warrants.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

The information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein may contain forward-looking statements and information within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the “safe harbor” created by those sections. These forward-looking statements include, but are not limited to, statements concerning our strategy, our beliefs regarding our future results of operations and financial position, business strategy, prospective products and product candidates, their expected performance and impact on healthcare costs, the results of our ongoing clinical trials, marketing clearance from the FDA, reimbursement for our product candidates, research and development costs and revenue, timing of regulatory filings, timing and likelihood of success, plans and objectives of management for future operations, availability of raw materials and components for our products, availability of funding for such operations and future results of anticipated products. The words “anticipates”, “believes”, “estimates”, “expects”, “intends”, “targets”, “may”, “plans”, “projects”, “potential”, “will”, “would”, “could” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. All such forward-looking statements involve significant risks and uncertainties, including, but not limited to, statements regarding:

- our ability to continue as a going concern;
- our status as an early-stage commercial company;
- our expectation to incur losses in the future;
- the market acceptance of our technology;
- our ability to timely and successfully develop and commercialize our existing products and future product candidates;
- the length and variability of our anticipated sales and adoption cycle;
- our ability to gain the support of hospitals and key thought leaders and publish the results of our clinical studies in peer-reviewed journals;
- our ability to successfully manage our growth;
- our future capital needs and our ability to raise additional funds;
- the performance of our diagnostics;
- our ability to compete in the highly competitive diagnostics market;
- our ability to obtain marketing clearance from the U.S. Food and Drug Administration or regulatory clearance for new product candidates in other jurisdictions;
- federal, state, and foreign regulatory requirements, including diagnostic product reimbursements and FDA regulation of our products and product candidates;
- our ability to protect and enforce our intellectual property rights, including our trade secret-protected proprietary rights in our technology;
- our ability to recruit, train and retain key personnel;
- our dependence on third parties;
- manufacturing and other product risks, including unforeseen interruptions in supply chain;
- the impact of cybersecurity risks, including ransomware, phishing, and data breaches on our information technology systems;
- the impact of short sellers and day traders on our share price;

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- our ability to regain and maintain compliance with Nasdaq listing requirements;
- the impact of the COVID-19 pandemic on our business, results of operations and financial positions;
- the continued market demand for SARS-CoV-2 testing and our ability to convert T2SARS-CoV-2 customers to our other test panels;
- the period of time for which our existing cash and cash equivalents will enable us to fund our operations; and
- our intended use of proceeds from this offering.

As more fully described under the heading “Risk Factors” and elsewhere in this prospectus supplement and under “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2021 and our Quarterly Report on Form 10-Q for the quarters ended March 31, 2022, June 30, 2022 and September 30, 2022, which are incorporated by reference into this prospectus supplement, many important factors affect our ability to achieve our stated objectives and to develop and commercialize any product candidates. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks and uncertainties set forth in our filings with the SEC. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein and any free writing prospectuses that we have authorized for use in this offering with the understanding that our actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. The forward-looking statements are applicable only as of the date on which they are made, and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

We estimate that the net proceeds from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ million.

The above does not give effect to any exercise of the pre-funded warrants or the warrants being offered in this offering.

We intend to use the net proceeds of this offering to for working capital and other general corporate purposes.

We believe that our cash and cash equivalents, together with the net proceeds from this offering, will fund our operations through . We have based this estimate on assumptions that may prove to be incorrect, and we could utilize our available capital resources sooner than we currently expect. The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials and other development efforts and other factors described under “Risk Factors” in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, 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.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We intend to retain future earnings, if any, to finance the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors after considering our financial condition, results of operations, capital requirements, business prospects and other factors the board of directors deems relevant, and subject to the restrictions contained in our outstanding credit agreement.

DILUTION

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

Our historical net tangible book value of our common stock as of September 30, 2022 was approximately \$31.7 million, or \$4.49 per share based upon 7,050,849 shares outstanding. Net tangible book value per share is equal to our total tangible assets, less our total liabilities, divided by the total number of shares outstanding as of September 30, 2022.

After giving effect to our issuance and sale of (i) _____ shares of our common stock and accompanying warrants to purchase _____ shares of our common stock in this offering at a public offering price of \$ _____ per share of common stock and accompanying warrant and (ii) pre-funded warrants to purchase _____ shares of our common stock and accompanying warrants to purchase _____ shares of our common stock in this offering at a public offering price of \$ _____ per pre-funded warrant and accompanying warrant, assuming the exercise in full of all pre-funded warrants, after deducting underwriting discounts and commissions and estimated offering expenses payable by us (and assuming no exercise of the pre-funded warrants or the warrants offered hereby and that such pre-funded warrants and warrants are classified and accounted for as stockholders' equity), our as adjusted net tangible book value as of September 30, 2022 would have been \$ _____ million, or \$ _____ per share of common stock. This represents an immediate increase in as adjusted net tangible book value of \$ _____ per share of common stock to our existing stockholders and immediate dilution in as adjusted net tangible book value of \$ _____ per share of common stock and accompanying to purchasers in this offering. Dilution per share is calculated by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share of common stock and accompanying warrant.

The following table illustrates this per share dilution:

Public offering price per share of common stock and accompanying warrant		\$
Net tangible book value per share as of September 30, 2022	\$	
Increase in as adjusted net tangible book value per share attributable to this offering	\$	
As adjusted net tangible book value per share after this offering		\$
Dilution per share to purchasers of common stock and accompanying warrants in this offering		\$

After giving effect to the exercise of the warrants to purchase _____ shares of common stock in full at an exercise price of \$ _____ per share, our as adjusted net tangible book value per share after this offering would be \$ _____, representing an immediate increase in as adjusted net tangible book value per share of \$ _____ to existing stockholders and immediate dilution in as adjusted net tangible book value per share of \$ _____ to purchasers in this offering.

The number of shares of our common stock to be outstanding immediately after this offering is based on 7,050,849 shares of our common stock outstanding as of September 30, 2022 and excludes:

- 193,220 shares of our common stock issuable upon the exercise of stock options outstanding under the 2014 Plan at a weighted average exercise price of \$137.64 per share, as of September 30, 2022;

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- 224,302 restricted stock units that were unvested as of September 30, 2022;
- 52,676 shares of our common stock reserved for future issuance under our 2014 Plan as of September 30, 2022, as well as any automatic increases in the number of shares of our common stock reserved for future issuance;
- 84,501 shares of our common stock reserved for future issuance under our Inducement Award Plan, as amended;
- 29,181 shares of our common stock reserved for future issuance under our 2014 ESPP, as of September 30, 2022, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under our 2014 ESPP;
- 1,291,235 shares of common stock sold pursuant to our sales agreement in an “at the market” offering subsequent to September 30, 2022;
- 21,944 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2022, with an exercise price of \$77.50 per share;
- 42,857 shares of our common stock issuable upon the exercise of warrants that will become exercisable on February 15, 2023 and were outstanding as of September 30, 2022, with an exercise price of \$7.50 per share, which are subject to potential full ratchet anti-dilution adjustment as a result of this offering; and
- 3,000 shares of Series A redeemable convertible preferred stock that were redeemed in October 2022.

Unless otherwise stated, all information contained in this prospectus supplement assumes no issuance or exercise of stock options or warrants after September 30, 2022, or the exercise of the warrant offered hereby. To the extent that any outstanding options or warrants are exercised or we otherwise issue additional shares of common stock or warrants in the future, there will be further dilution to new investors. 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 may result in further dilution to our stockholders.

DESCRIPTION OF THE PRE-FUNDED WARRANTS AND THE WARRANTS

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 form of pre-funded warrant. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise of the prefunded warrants.

Form. The pre-funded warrants will be issued as individual pre-funded 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 will be filed in connection with this offering.

Exercisability. The pre-funded warrants will be exercisable immediately and at any time until . 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, at any time a registration statement registering the issuance of the shares of common stock underlying the pre-funded warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. In addition, 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 the pre-funded warrants.

Exercise Limitation. A holder will not have the right to exercise any portion of the pre-funded warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrant. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us.

Exercise Price. The pre-funded warrants are exercisable for an aggregate of shares of our common stock, at an exercise price of \$0.001 per share of common stock. The exercise price and number of shares of common stock issuable upon exercise of the pre-funded warrants will proportionally adjust in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Fundamental Transaction. In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the pre-funded warrants will be entitled to receive upon exercise of such pre-funded warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised their pre-funded warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the pre-funded warrants.

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

Listing. 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 Capital Market, any other national securities exchange or any other nationally recognized trading system.

Warrants

The following is a brief summary of certain terms and conditions of the warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the form of warrant. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise of the warrants.

Form. The warrants will be issued as individual warrant agreements to the investors. The form of warrant will be filed as an exhibit to our Current Report on Form 8-K that will be filed prior to the consummation of this offering.

Exercisability. The warrants will be exercisable immediately and at any time until . 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 and, at any time a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If, at the time a holder exercises its warrants, a registration statement registering the issuance or resale 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, the holder may elect to exercise the 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 warrant. No fractional shares of common stock will be issued in connection with the exercise of the warrants.

On or after the earlier of (i) the thirty-day anniversary of the date of the underwriting agreement and (ii) the date on which the aggregate composite trading volume of our common stock as reported by Bloomberg L.P. beginning on the date of the underwriting agreement exceeds shares, a holder of warrants may also provide notice and elect an “alternative cashless exercise” pursuant to which they would receive an aggregate number of shares equal to the product of (x) the aggregate number of shares of common stock that would be issuable upon a cash exercise and (y) .

Exercise Limitation. A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% 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. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us.

Exercise Price. The warrants are exercisable for an aggregate of shares of our common stock, at an exercise price of \$ per share of common stock. The exercise price and number of shares of common stock issuable upon exercise of the warrants will proportionally adjust in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Fundamental Transaction. In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the warrants will be entitled to receive upon exercise of such warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised their warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the warrants. Additionally, as more fully described in the warrants, in the event of certain fundamental transactions, the holders of the warrants will be entitled to receive consideration in an amount equal to the Black Scholes value of the warrants on the date of consummation of such transaction.

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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.

Listing. There is no established public trading market for the warrants, and we do not expect a market to develop. We do not intend to list the warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion is a summary of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our Securities issued pursuant to this offering. This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, and does not address the effect of any U.S. federal non-income tax laws, such as the estate or gift tax laws, or any tax consequences arising under any state, local or foreign tax laws. This discussion is based on the U.S. 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”), all as in effect as of the date of this offering. These authorities may change or be subject to differing interpretations, possibly retroactively, resulting in U.S. federal income tax consequences different from those discussed below. We have not requested and will not request a ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions or that a court will not take a contrary position.

This discussion is limited to holders who purchase our Securities pursuant to this offering and who hold our 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 of the U.S. federal income tax consequences that may be relevant to a particular holder in light of such holder’s particular circumstances, including the impact of the alternative minimum tax or the unearned income Medicare contribution tax. This discussion also does not address consequences relevant to holders subject to special rules under the U.S. federal income tax laws, 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 our Securities under the constructive sale provisions of the Code;
- persons for whom our common stock or pre-funded warrants constitute “qualified small business stock” within the meaning of Section 1202 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 our Securities being taken into account in an “applicable financial statement” (as defined in the Code);
- “qualified foreign pension funds” as defined in Section 897(1)(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 a partnership or an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds our Securities, the U.S. federal income tax treatment of a partner will generally depend on the

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status of the partner, the activities of the partnership and certain determinations made at the partner level. Partnerships holding our Securities and the partners in such partnerships are urged to consult their tax advisors as to particular U.S. federal income tax consequences to them of the acquisition, ownership and disposition of our Securities.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR SECURITIES IN THEIR PARTICULAR CIRCUMSTANCES, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS.

Allocation of purchase price

Each share of common stock or pre-funded warrant, as applicable, and accompanying common warrant will be treated for U.S. federal income tax purposes as an investment unit consisting of one share of our common stock or pre-funded warrant, as applicable, and a common warrant to purchase a share of our common stock. In determining their tax basis for the common stock or pre-funded warrant and common warrant constituting a unit, holders of our Securities should allocate their purchase price for the unit between the common stock or pre-funded warrant, as applicable, and the common warrant on the basis of their relative fair market values at the time of issuance. We do not intend to advise holders of our Securities with respect to this determination, and holders of our Securities are advised to consult their tax and financial advisors with respect to the relative fair market values of the common stock or pre-funded warrant, as applicable, and the common warrants for U.S. federal income tax purposes.

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 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 \$0.001. 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 our Securities that for U.S. federal income tax purposes is, or is treated as, any of the following:

- an individual 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 (1) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust, or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Distributions

We do not anticipate paying any cash dividends in the foreseeable future. However, if we do make cash or other property distributions on our common stock or pre-funded warrants, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital to the extent of the holder's tax basis in our common stock or pre-funded warrants, and, thereafter, as gain on the sale or other disposition of our common stock or pre-funded warrants, which is taxed as described under "—Sale or other taxable disposition of our Securities" below.

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.

Sale or other taxable disposition of our common stock or pre-funded warrants

Upon the sale or other taxable disposition of our common stock or pre-funded warrants, 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 or other taxable disposition and (ii) such U.S. holder's adjusted tax basis in the common stock or pre-funded warrants. 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 warrants is more than one year at the time of the sale 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.

Sale or other taxable disposition, exercise or expiration of our common warrants

Upon the sale or other taxable disposition of a common warrant (other than by exercise), a U.S. holder will generally recognize capital gain or loss equal to the difference between the amount realized on the sale or other taxable disposition and the U.S. holder's tax basis in the common warrant. This capital gain or loss will be long-term capital gain or loss if the U.S. holder's holding period in such common warrant is more than one year at the time of the sale or other disposition. The deductibility of capital losses is subject to certain limitations.

In general, a U.S. holder will not be required to recognize income, gain or loss upon exercise of a common warrant for its exercise price. A U.S. holder's tax basis in a share of common stock received upon exercise of common warrants will be equal to the sum of (1) the U.S. holder's tax basis in the common warrants exchanged therefor and (2) the exercise price of such common warrants. A U.S. holder's holding period in the shares of common stock received upon exercise will commence on the day after such U.S. holder exercises the common warrants. Although there is no direct legal authority as to the U.S. federal income tax treatment of an exercise of a common warrant on a cashless basis, we intend to take the position that such exercise will not be taxable, either because the exercise is not a gain realization event or because it qualifies as a tax-free recapitalization. In the former case, the holding period of the shares of common stock received upon exercise of common warrants should commence on the day after the common warrants are exercised. In the latter case, the holding period of the shares of common stock received upon exercise of common warrants would include the holding period of the exercised common warrants.

However, our position is not binding on the IRS, and the IRS may treat a cashless exercise of a common warrant as a taxable exchange. U.S. holders are urged to consult their tax advisors as to the consequences of an exercise of a common warrant on a cashless basis, including with respect to their holding period and tax basis in the common stock received.

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If a common warrant expires without being exercised, a U.S. holder will recognize a capital loss in an amount equal to such holder's tax basis in the common warrant. Such loss will be long-term capital loss if, at the time of the expiration, the U.S. holder's holding period in such common warrant is more than one year. The deductibility of capital losses is subject to certain limitations.

Constructive dividends on our common warrants or pre-funded warrants

If at any time during the period in which a U.S. holder holds common warrants, we were to pay a taxable dividend to our stockholders and, in accordance with the anti-dilution provisions of the common warrants, the exercise price of the common warrants were decreased, that decrease would be deemed to be the payment of a taxable dividend to a U.S. holder of the common warrants to the extent of our earnings and profits, notwithstanding the fact that such holder will not receive a cash payment. If the exercise price is adjusted in certain other circumstances or other adjustments are made (or in certain circumstances, there is a failure to make adjustments), such adjustments may also result in the deemed payment of a taxable dividend to a U.S. holder. In addition, 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 our common warrants and 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 our Securities (including constructive dividends) or receives proceeds from the sale or other taxable disposition of our Securities. 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:

- fails to furnish the holder's taxpayer identification number, which for an individual is ordinarily his or her social security number;
- furnishes an incorrect taxpayer identification number;
- 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 our 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 cash or other property distributions on our common stock or pre-funded warrants, such distributions of cash or property on our common stock or pre-funded warrants will constitute dividends for U.S. federal income tax purposes to

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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 or pre-funded warrants, 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, pre-funded warrants or warrants. 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.

Subject to the discussions below on backup withholding and foreign accounts, dividends paid to a non-U.S. holder of our common stock or pre-funded warrants 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 or pre-funded warrants 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 and must be updated periodically. 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 graduated U.S. federal income tax rates. 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 our common warrants or pre-funded warrants

A non-U.S. holder generally will not be subject to U.S. federal income tax on the exercise of common warrants or pre-funded warrants. However, if a cashless exercise of common warrants or pre-funded warrants results in a taxable exchange, as described above under “—Treatment of pre-funded warrants” and “—Tax consequences to U.S. holders—Sale or other taxable disposition, exercise or expiration of our common warrants,” the rules described below under “—Sale or other disposition of our Securities” would apply.

Sale or other disposition of our Securities

Subject to the discussion below regarding backup withholding, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of our Securities, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and, if required by an applicable income tax treaty, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States;
- 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 disposition, and certain other requirements are met; or
- our Securities 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 graduated U.S. federal income tax rates. 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 derived from the 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 our common warrants or pre-funded warrants

If at any time during the period in which a non-U.S. holder holds our common warrants we were to pay a taxable dividend to our stockholders and, in accordance with the anti-dilution provisions of the common warrants, the exercise price of the common warrants were decreased, that decrease would be deemed to be the payment of a taxable dividend to a non-U.S. holder to the extent of our earnings and profits, notwithstanding the fact that such holder will not receive a cash payment. If the exercise price is adjusted in certain other circumstances or other adjustments are made (or in certain circumstances, there is a failure to make adjustments), such adjustments may also result in the deemed payment of a taxable dividend to a non-U.S. holder. A holder of pre-funded warrants can similarly be treated as receiving deemed payment of a taxable dividend under certain circumstances. 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 (or absence of adjustments) to the common warrants and pre-funded warrants.

Information reporting and backup withholding

Subject to the discussion below on foreign accounts, a non-U.S. holder will not be subject to backup withholding with respect to distributions on our common stock or pre-funded warrants we make to the non-U.S.

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holder (including constructive dividends with respect to warrants and pre-funded warrants), 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, pre-funded warrants and 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, pre-funded warrants or 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, pre-funded warrants or 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 U.S. person) or such owner otherwise establishes an exemption. Proceeds of a disposition of our common stock, pre-funded warrants or warrants conducted through a non-U.S. office of 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 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 our common stock, pre-funded warrants or warrants, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of our common stock, pre-funded warrants or warrants 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 the 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 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 our common stock, pre-funded warrants or warrants on or after 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 these withholding provisions.

UNDERWRITING

We are offering the shares of common stock and pre-funded warrants described in this prospectus supplement and the accompanying prospectus through the underwriter listed below. The underwriter named below has agreed to buy, subject to the terms of the underwriting agreement, the number of securities listed opposite its name below. The underwriter is committed to purchase and pay for all of the securities if any are purchased. Craig-Hallum Capital Group LLC is the sole underwriter.

Underwriter	Number of Shares	Number of Warrants	Number of Pre-funded Warrants
Craig-Hallum Capital Group LLC	_____	_____	_____
Total	_____	_____	_____

The underwriter has advised us that they propose to offer the shares of common stock, warrants and pre-funded warrants to the public at a price of \$ _____ per share and related warrant and the pre-funded warrants at a price of \$ _____ per pre-funded warrant and related warrant. The underwriter proposes to offer the shares of common stock and warrants to certain dealers at the same price less a concession of not more than \$ _____ per share and \$ _____ per warrant. If all of the securities are not sold at the public offering price, the underwriter may change the offering price and other selling terms.

The underwriter is offering the shares, warrants and pre-funded warrants, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by its counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriter of officers' certificates and legal opinions. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. The underwriter has advised us that it does not intend to confirm sales to any accounts over which it exercises discretionary authority.

The shares, warrants and pre-funded warrants sold in this offering are expected to be ready for delivery on or about _____, 2023, against payment in immediately available funds.

The table below summarizes the underwriting discounts that we will pay to the underwriter. In addition to the underwriting discount, we have agreed to reimburse up to \$115,000 of the fees and expenses of the underwriter, which includes the fees and expenses of counsel to the underwriter, in connection with this offering. The fees and expenses of the underwriter that we have agreed to reimburse are not included in the underwriting discounts set forth in the table below. The underwriting discount and reimbursable expenses the underwriter will receive were determined through arms' length negotiations between us and the underwriter.

	Per Share and Related Warrant	Per Pre-funded Warrant and Related Warrant	Total
Public offering price	\$ _____	\$ _____	\$ _____
Underwriting discounts and commissions(1)	\$ _____	\$ _____	\$ _____
Proceeds, before expenses and fees, to us	\$ _____	\$ _____	\$ _____

(1) The underwriter shall receive an underwriting discount of 7% of the aggregate gross proceeds hereunder.

We estimate that the total expenses of this offering, excluding underwriting discounts, will be \$ _____. This includes \$115,000 of fees and expenses of the underwriter which are payable by us.

Indemnification

We have agreed to indemnify the underwriter against certain liabilities, including civil liabilities under the Securities Act, or to contribute to payments that the underwriter may be required to make in respect of those liabilities.

Lock-Up Agreements

We have agreed to not sell any shares of our common stock, or any securities convertible into or exercisable or exchangeable into shares of common stock, subject to certain exceptions, for a period of 90 days after the closing of this offering unless we obtain prior written consent of the underwriter. This consent may be given at any time without public notice, and the underwriter may consent in their sole discretion. In addition, each of our directors and executive officers has entered into a lock-up agreement with the underwriter. Under the lock-up agreements, subject to certain limited circumstances, our directors and officers may not sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock during the period from the date of this prospectus supplement continuing through the date 90 days after the date of this prospectus supplement without first obtaining the written consent of the underwriter. This consent may be given at any time without public notice, and the underwriter may consent in its sole discretion.

Leak-Out Agreements

Certain investors in this offering may enter into leak-out agreements wherein each investor who is party thereto (together with certain of its affiliates) will agree not to sell, dispose or otherwise transfer, directly or indirectly (including, without limitation, any sales, short sales, swaps or any derivative transactions that would be equivalent to any sales or short positions), on any trading day, shares of our common stock, including shares of common stock purchased in this offering and the shares of common stock issuable upon exercise of the warrants and pre-funded warrants, in an amount more than its pro rata portion of % of the trading volume of the common stock on the principal trading market, subject to certain exceptions. This restriction will not apply to any sales by such investor (together with certain of its affiliates) (i) at prices greater than \$ (in each case, as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar events) and (ii) purchased in open market transactions by such investor (together with certain of its affiliates) during the restricted period. After such sale or transfer, future sales of the securities covered by the leak-out agreement entered into by the original owner (together with certain of its affiliate) and the purchaser or transferee will be aggregated to determine compliance with the terms of the leak-out agreement.

Stabilization

In connection with this offering, the underwriter may engage in stabilizing transactions. Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

Other Relationships

The underwriter and its respective affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. The underwriter may in the future receive customary fees and commissions for these transactions.

In the ordinary course of its various business activities, the underwriter and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of its customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriter and

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its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Electronic Offer, Sale and Distribution

A prospectus supplement in electronic format may be made available on the websites maintained by the underwriter, if any, participating in this offering and the underwriter may distribute prospectus supplements electronically. Other than the prospectus supplement in electronic format, the information on these websites is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved or endorsed by us or the underwriter, and should not be relied upon by investors.

Transfer Agent

The transfer agent for our common stock is American Stock Transfer & Trust Company, LLC.

Listing on Nasdaq

Our common stock is listed on The Nasdaq Capital Market under the symbol "TTOO". We do not plan to list the warrants or the pre-funded warrants on The Nasdaq Capital Market or any other securities exchange or trading market.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Latham & Watkins LLP. The underwriter is being represented in connection with this offering by Ellenoff Grossman & Schole LLP.

EXPERTS

The consolidated financial statements as of December 31, 2021 and 2020 and for each of the two years in the period ended December 31, 2021 incorporated by reference in this Prospectus and in the Registration Statement have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

Available Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.t2biosystems.com. The information on our web site, however, is not, and should not be deemed to be, a part of or incorporated by reference in this prospectus supplement.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the SEC and do not contain all of the information in the registration statement. This prospectus supplement omits some information contained in the registration statement in accordance with SEC rules and regulations. The full registration statement may be obtained from the SEC or us, as provided below. Other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement and the accompanying prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference 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 or the accompanying prospectus modifies or replaces that statement.

We incorporate by reference the following information or documents that we have filed with the SEC:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 23, 2022.
- Our Quarterly Report on Form 10-Q for the quarters ended March 31, 2022, June 30, 2022 and September 30, 2022, filed with the SEC on [May 12, 2022](#), [August 16, 2022](#) and [November 14, 2022](#), respectively.
- Our Current Reports on Form 8-K and 8-K/A filed with the SEC on [April 1, 2022](#), [April 1, 2022](#), [April 27, 2022](#), [May 11, 2022](#), [May 24, 2022](#), [June 10, 2022](#), [July 6, 2022](#), [July 11, 2022](#), [July 25, 2022](#), [August 9, 2022](#), [August 30, 2022](#), [September 30, 2022](#), [September 30, 2022](#), [October 12, 2022](#), [October 12, 2022](#), [October 13, 2022](#), [November 7, 2022](#), [November 25, 2022](#), [January 23, 2023](#) and February 13, 2023.
- Our annual [Proxy Statement](#) on Schedule 14A relating to our annual meeting of stockholders, filed on August 26, 2022 (with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2021).
- The description of our common stock contained in our registration statement on [Form 8-A](#), filed with the SEC on July 25, 2014 and any amendment or report filed with the SEC for the purpose of updating such description.

We incorporate by reference into this prospectus supplement and accompanying prospectus all reports and other documents we subsequently file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the

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Securities Exchange Act of 1934, as amended, between the date of this prospectus supplement and the termination of the offering of the securities described in this prospectus supplement. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed above or filed in the future, that are not deemed “filed” with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K. The reports and documents specifically listed above or filed in the future (excluding any information furnished to, rather than filed with, the SEC) are deemed to be part of this prospectus supplement and accompanying prospectus from the date of the filing of such reports and documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus supplement and the accompanying prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

T2 Biosystems, Inc.
101 Hartwell Avenue
Lexington, MA 02421
Attention: General Counsel
(781) 761-4646

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus supplement and the accompanying prospectus.

PROSPECTUS



\$150,000,000

**Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

We may offer and sell up to \$150,000,000 in the aggregate of the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we offer and sell securities, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities. The supplement may also add, update or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus and the applicable prospectus supplement before you invest in any of our securities.

We may offer and sell the securities described in this prospectus and any prospectus supplement to or through one or more underwriters, dealers and agents, or directly to purchasers, or through a combination of these methods. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus entitled "About this Prospectus" and "Plan of Distribution" for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE "[RISK FACTORS](#)" ON PAGE 5 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

Our common stock is listed on the Nasdaq Global Market under the symbol "TTOO." On March 30, 2021, the last reported sale price of our common stock on the Nasdaq Global Market was \$1.545 per share.

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 April 9, 2021.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a “shelf” registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings up to a total dollar amount of \$150,000,000 as described in this prospectus. Each time that we offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or free writing prospectus, you should rely on the prospectus supplement or free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement (and any applicable free writing prospectuses), together with the additional information described under the heading “Where You Can Find More Information; Incorporation by Reference.”

We have not authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

When we refer to “T2 Biosystems,” “we,” “our,” “us” and the “Company” in this prospectus, we mean T2 Biosystems, Inc. and its consolidated subsidiaries, unless otherwise specified. When we refer to “you,” we mean the potential holders of the applicable series of securities.

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

Available Information

We file reports, proxy statements and other information with the SEC. The SEC maintains a web site that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is www.sec.gov.

Our website address is www.t2biosystems.com. The information on our website, however, is not, and should not be deemed to be, a part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Forms of the indenture and other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement or documents incorporated by reference in the registration statement. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC, other than any portions of the respective filing that were furnished, pursuant to Item 2.02 or Item 7.01 of Current Reports on Form 8-K (including exhibits related thereto) or other applicable SEC rules, rather than filed:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2020, filed with the SEC on March 31, 2021.
- The information specifically incorporated by reference into our Annual Report on Form 10-K from our [Definitive Proxy Statement](#) on Schedule 14A, filed with the SEC on June 26, 2020.
- Our Current Report on [Form 8-K](#) filed with the SEC on January 27, 2021.
- The description of our common stock contained in our registration statement on [Form 8-A](#), filed with the SEC on July 25, 2014 and any amendment or report filed with the SEC for the purpose of updating such description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, which we refer to as the "Exchange Act" in this prospectus, prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

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You may request a free copy of any of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

T2 Biosystems, Inc.
101 Hartwell Avenue
Lexington, MA 02421
Attention: General Counsel
(781) 761-4646

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus or any accompanying prospectus supplement.

THE COMPANY

We are an in vitro diagnostics company and leader in the rapid detection of sepsis-causing pathogens and are dedicated to improving patient care and reducing the cost of care by helping clinicians effectively treat patients faster than ever before. We have developed an innovative and proprietary technology platform that offers a rapid, sensitive and simple alternative to existing diagnostic methodologies. We are using our T2MR technology to develop a broad set of applications aimed at lowering mortality rates, improving patient outcomes and reducing the cost of healthcare by helping medical professionals make targeted treatment decisions earlier. T2MR enables rapid detection of pathogens, biomarkers and other abnormalities in a variety of unpurified patient sample types, including whole blood, plasma, serum, saliva, sputum and urine, and can detect cellular targets at limits of detection as low as one colony forming unit per milliliter, or CFU/mL. Our products include the T2Dx Instrument, T2Candida Panel, the T2Bacteria Panel, the T2Resistance Panel, and the T2SARS-CoV-2 Panel that are all powered by our proprietary T2MR technology. Our initial development efforts target sepsis, which is an area of significant unmet medical need in which existing therapies could be more effective with improved diagnostics.

We own various U.S. federal trademark registrations and applications, and unregistered trademarks and service marks, including T2 Biosystems®, T2MR®, T2Dx®, T2Candida®, T2Bacteria®, T2SARS-CoV-2™ and T2Lyme™.

We were incorporated under the laws of the State of Delaware in 2006. Our principal executive offices are located at 101 Hartwell Ave., Lexington, MA 02421 and our telephone number is (781) 761-4646.

RISK FACTORS

Investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in the applicable prospectus supplement and any applicable free writing prospectus before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the securities as set forth in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our certificate of incorporation, which has been publicly filed with the SEC. See “Where You Can Find More Information; Incorporation by Reference.”

Our authorized capital stock consists of:

- 200,000,000 shares of common stock, \$0.001 par value; and
- 10,000,000 shares of preferred stock, \$0.001 par value.

Common Stock

Voting Rights and Election of Directors

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of shareholders and do not have any cumulative voting rights. An election of directors by our stockholders is determined by a plurality of the votes cast by the stockholders entitled to vote in the election. Subject to the supermajority votes for some matters, other matters are decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to adopt any provision inconsistent with, several of the provisions of our restated certificate of incorporation.

Other Rights and Preferences

Our common stock has no preemptive, subscription, redemption or conversion rights or sinking fund provisions.

Liquidation

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock.

Fully Paid and Non-Assessable

All outstanding shares of common stock are fully paid and non-assessable.

Transfer Agent

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

Dividend

Holders of our common stock are entitled to receive proportionately any dividends as may be declared by the board of directors, subject to any preferential dividend rights of any outstanding preferred stock that we may designate and issue in the future. The Company has not paid cash dividends on any of its shares of capital stock.

Preferred Stock

Our board of directors is authorized to direct us to issue up to 10,000,000 shares of preferred stock in one or more series without shareholder approval. Our board of directors has the discretion to determine the rights,

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preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock.

Staggered Board

Our board of directors is divided into three classes. The directors in each class serve for a three year term, one class being elected each year by our stockholders. This system of electing and removing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Anti-Takeover Effects of Delaware Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. Under Section 203, we would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to this time, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers, and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a “business combination” includes:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder, subject to limited exceptions;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement or free writing prospectus, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a third-party trustee to be identified therein. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement and you should read the indenture for provisions that may be important to you. In the summary below, we have included references to the section numbers of the indenture so that you can easily locate these provisions. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

As used in this section only, “T2 Biosystems,” “we,” “our” or “us” refer to T2 Biosystems, Inc.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer’s certificate or by a supplemental indenture. (Section 2.2) The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. (Section 2.1) We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered, the aggregate principal amount and the following terms of the debt securities, if applicable:

- the title and ranking of the debt securities (including the terms of any subordination provisions);
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;
- any limit on the aggregate principal amount of the debt securities;
- the date or dates on which the principal of the securities of the series is payable;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where principal of, and interest, if any, on the debt securities will be payable (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;

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- the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem the debt securities;
- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and in the terms and conditions upon which securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the dates on which and the price or prices at which we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities, which may be United States Dollars or any foreign currency, and if such currency of denomination is a composite currency, the agency or organization, if any, responsible for overseeing such composite currency;
- the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made;
- if payments of principal of, premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, premium, if any, or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities;
- any addition to, deletion of or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to, deletion of or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities;
- the provisions, if any, relating to conversion or exchange of any debt securities of such series, including if applicable, the conversion or exchange price and period, provisions as to whether conversion or exchange will be mandatory, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange;
- any other terms of the debt securities, which may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the securities; and
- whether any of our direct or indirect subsidiaries will guarantee the debt securities of that series, including the terms of subordination, if any, of such guarantees. (Section 2.2)

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We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, or the Depository, or a nominee of the Depository (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement. Except as set forth under the heading “Global Debt Securities and Book-Entry System” below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. (Section 2.4) No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange. (Section 2.7)

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Global Debt Securities and Book-Entry System. Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depository, and registered in the name of the Depository or a nominee of the Depository. Please see “Global Securities.”

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities. (Article IV)

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to any person (a “successor person”) unless:

- we are the surviving corporation or the successor person (if other than T2 Biosystems) is a corporation

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organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture; and

- immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties to us. (Section 5.1)

Events of Default

“Event of Default” means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
- default in the payment of principal of any security of that series at its maturity;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or T2 Biosystems and the trustee receive written notice from the holders of not less than 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of T2 Biosystems;
- any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement. (Section 6.1)

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. (Section 6.1) The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

We will provide the trustee written notice of any Default or Event of Default within 30 days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action we are taking or propose to take in respect thereof. (Section 6.1)

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of

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that series, have been cured or waived as provided in the indenture. (Section 6.2) We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee may refuse to perform any duty or exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in performing such duty or exercising such right or power. (Section 7.1(e)) Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series. (Section 6.12)

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security satisfactory to the trustee, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days. (Section 6.7)

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment. (Section 6.8)

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. (Section 4.3) If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall mail to each securityholder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such Default or Event of Default. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities. (Section 7.5)

Modification and Waiver

We and the trustee may modify, amend or supplement the indenture or the debt securities of any series without the consent of any holder of any debt security:

- to cure any ambiguity, defect or inconsistency;
- to comply with covenants in the indenture described above under the heading "Consolidation, Merger and Sale of Assets";
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to add guarantees with respect to debt securities of any series or secure debt securities of any series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of debt securities of any series;

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- to comply with the applicable procedures of the applicable depository;
- to make any change that does not adversely affect the rights of any holder of debt securities;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act. (Section 9.1)

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security. (Section 9.3)

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. (Section 9.2) The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration. (Section 6.13)

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the irrevocable deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money or U.S. government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred. (Section 8.3)

Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading “Consolidation, Merger and Sale of Assets” and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and
- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series (“covenant defeasance”).

The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and
- delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred. (Section 8.4)

No Personal Liability of Directors, Officers, Employees or Securityholders

None of our past, present or future directors, officers, employees or securityholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability. This waiver and release is part of the consideration for the issue of the debt securities.

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However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

The indenture will provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the indenture, the debt securities or the transactions contemplated thereby.

The indenture will provide that any legal suit, action or proceeding arising out of or based upon the indenture or the transactions contemplated thereby may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the City of New York, and we, the trustee and the holder of the debt securities (by their acceptance of the debt securities) irrevocably submit to the non-exclusive jurisdiction of such courts in any such suit, action or proceeding. The indenture will further provide that service of any process, summons, notice or document by mail (to the extent allowed under any applicable statute or rule of court) to such party's address set forth in the indenture will be effective service of process for any suit, action or other proceeding brought in any such court. The indenture will further provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the courts specified above and irrevocably and unconditionally waive and agree not to plead or claim any such suit, action or other proceeding has been brought in an inconvenient forum. (Section 10.10)

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock or preferred stock or of debt securities. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent. The following summary of material provisions of the warrants and warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. We urge you to read the applicable prospectus supplement and any related free writing prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

The particular terms of any issue of warrants will be described in the prospectus supplement relating to the issue. Those terms may include:

- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- the designation, stated value and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock;
- the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants, which may be payable in cash, securities or other property;
- the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;
- the terms of any rights to redeem or call the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- United States Federal income tax consequences applicable to the warrants; and
- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

- to vote, consent or receive dividends;
- to receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or
- to exercise any rights as stockholders of T2 Biosystems.

Each warrant will entitle its holder to purchase the principal amount of debt securities or the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth 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 the specified time 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.

A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any

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other office indicated in the applicable prospectus supplement. Until any warrants to purchase debt securities are exercised, the holder of the warrants will not have any rights of holders of the debt securities that can be purchased upon exercise, including any rights to receive payments of principal, premium or interest on the underlying debt securities or to enforce covenants in the applicable indenture. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

DESCRIPTION OF UNITS

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain United States federal income tax considerations applicable to the units; and
- any other terms of the units and their constituent securities.

GLOBAL SECURITIES

Book-Entry, Delivery and Form

Unless we indicate differently in any applicable prospectus supplement or free writing prospectus, the securities initially will be issued in book-entry form and represented by one or more global notes or global securities, or, collectively, global securities. The global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, as depository, or DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depository to its nominee or by the nominee to the depository, or by the depository or its nominee to a successor depository or to a nominee of the successor depository.

DTC has advised us that it is:

- a limited-purpose trust company organized under the New York Banking Law;
- a “banking organization” within the meaning of the New York Banking Law;
- a member of the Federal Reserve System;
- a “clearing corporation” within the meaning of the New York Uniform Commercial Code; and
- a “clearing agency” registered pursuant to the provisions of Section 17A of the Exchange Act.

DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants’ accounts, thereby eliminating the need for physical movement of securities certificates. “Direct participants” in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations and other organizations. DTC is a wholly owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC’s records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants’ records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC’s records reflect only the identity of the direct participants to whose accounts the securities are credited, which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

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So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depositary and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities and the indenture may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depositary or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below and unless if otherwise provided in the description of the applicable securities herein or in the applicable prospectus supplement, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least 15 days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities and the indenture.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

DTC may discontinue providing its services as securities depositary with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depositary is not obtained, securities certificates are required to be printed and delivered.

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As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

- DTC notifies us that it is unwilling or unable to continue as a depository for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depository is not appointed within 90 days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;
- we determine, in our sole discretion, not to have such securities represented by one or more global securities; or
- an Event of Default has occurred and is continuing with respect to such series of securities,

we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities. Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depository directs. It is expected that these directions will be based upon directions received by the depository from its participants with respect to ownership of beneficial interests in the global securities.

Euroclear and Clearstream

If so provided in the applicable prospectus supplement, you may hold interests in a global security through Clearstream Banking S.A., which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., as operator of the Euroclear System, which we refer to as "Euroclear," either directly if you are a participant in Clearstream or Euroclear or indirectly through organizations which are participants in Clearstream or Euroclear. Clearstream and Euroclear will hold interests on behalf of their respective participants through customers' securities accounts in the names of Clearstream and Euroclear, respectively, on the books of their respective U.S. depositories, which in turn will hold such interests in customers' securities accounts in such depositories' names on DTC's books.

Clearstream and Euroclear are securities clearance systems in Europe. Clearstream and Euroclear hold securities for their respective participating organizations and facilitate the clearance and settlement of securities transactions between those participants through electronic book-entry changes in their accounts, thereby eliminating the need for physical movement of certificates.

Payments, deliveries, transfers, exchanges, notices and other matters relating to beneficial interests in global securities owned through Euroclear or Clearstream must comply with the rules and procedures of those systems. Transactions between participants in Euroclear or Clearstream, on one hand, and other participants in DTC, on the other hand, are also subject to DTC's rules and procedures.

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers and other transactions involving any beneficial interests in global securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

Cross-market transfers between participants in DTC, on the one hand, and participants in Euroclear or Clearstream, on the other hand, will be effected through DTC in accordance with the DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective U.S. depositories; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (European time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its U.S. depository to take action to effect final settlement on its behalf by delivering or receiving interests in the global securities through DTC, and making or receiving payment in accordance with normal procedures for same-day fund settlement. Participants in Euroclear or Clearstream may not deliver instructions directly to their respective U.S. depositories.

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Due to time zone differences, the securities accounts of a participant in Euroclear or Clearstream purchasing an interest in a global security from a direct participant in DTC will be credited, and any such crediting will be reported to the relevant participant in Euroclear or Clearstream, during the securities settlement processing day (which must be a business day for Euroclear or Clearstream) immediately following the settlement date of DTC. Cash received in Euroclear or Clearstream as a result of sales of interests in a global security by or through a participant in Euroclear or Clearstream to a direct participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Other

The information in this section of this prospectus concerning DTC, Clearstream, Euroclear and their respective book-entry systems has been obtained from sources that we believe to be reliable, but we do not take responsibility for this information. This information has been provided solely as a matter of convenience. The rules and procedures of DTC, Clearstream and Euroclear are solely within the control of those organizations and could change at any time. Neither we nor the trustee nor any agent of ours or of the trustee has any control over those entities and none of us takes any responsibility for their activities. You are urged to contact DTC, Clearstream and Euroclear or their respective participants directly to discuss those matters. In addition, although we expect that DTC, Clearstream and Euroclear will perform the foregoing procedures, none of them is under any obligation to perform or continue to perform such procedures and such procedures may be discontinued at any time. Neither we nor any agent of ours will have any responsibility for the performance or nonperformance by DTC, Clearstream and Euroclear or their respective participants of these or any other rules or procedures governing their respective operations.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters or dealers, through agents and/or directly to one or more purchasers. The securities may be distributed from time to time in one or more transactions:

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

Each time that we sell securities covered by this prospectus, we will provide a prospectus supplement or supplements that will describe the method of distribution and set forth the terms and conditions of the offering of such securities, including the offering price of the securities and the proceeds to us, if applicable.

Offers to purchase the securities being offered by this prospectus may be solicited directly. Agents may also be designated to solicit offers to purchase the securities from time to time. Any agent involved in the offer or sale of our securities will be identified in a prospectus supplement.

If a dealer is utilized in the sale of the securities being offered by this prospectus, the securities will be sold 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.

If an underwriter is utilized in the sale of the securities being offered by this prospectus, an underwriting agreement will be executed with the underwriter at the time of sale and the name of any underwriter will be provided in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter 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 and/or commissions from the purchasers for which they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis and a dealer will purchase securities as a principal, and may then resell the securities at varying prices to be determined by the dealer.

Any compensation paid to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers will be provided in the applicable prospectus supplement. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended (which we refer to as the "Securities Act" in this prospectus), and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof and to reimburse those persons for certain expenses.

Any common stock will be listed on the Nasdaq Global Market, but any other securities may or may not be listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment

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option, if any. In addition, these 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 dealers participating in the 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. These transactions may be discontinued at any time.

We may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

LEGAL MATTERS

Latham & Watkins LLP will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of T2 Biosystems. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements as of December 31, 2020 and 2019 and for each of the two years in the period ended December 31, 2020 incorporated by reference in this prospectus and in the registration statement have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

PRELIMINARY PROSPECTUS SUPPLEMENT

Shares of Common Stock

Warrants to Purchase up to	Shares of Common Stock
Pre-funded Warrants to Purchase up to	Shares of Common Stock



Craig-Hallum
