

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-267225PROSPECTUS SUPPLEMENT
(To Prospectus dated September 9, 2022)

25,000,000 Shares

**Common Stock**

We are offering 25,000,000 shares of our common stock, par value \$0.0001 per share, pursuant to this prospectus supplement. Our common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the symbol “HUMA.” On March 24, 2025, the last reported sale price per share of our common stock was \$3.32 per share.

We are an “emerging growth company” and a “smaller reporting company” under applicable Securities and Exchange Commission (“SEC”) rules and, as such, have elected to comply with certain reduced public company disclosure requirements in this prospectus supplement and future filings. See the section entitled “Prospectus Supplement Summary — Implications of Being an Emerging Growth Company and a Smaller Reporting Company.”

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should carefully consider the risks and uncertainties described under the caption “Risk Factors” beginning on page S-10 of this prospectus supplement and in our filings with the SEC that are incorporated by reference in this prospectus supplement.

	<u>Per Share</u>	<u>Total</u>
Public offering price	\$2.00	\$50,000,000
Underwriting discounts and commissions ⁽¹⁾	\$0.12	\$ 3,000,000
Proceeds, before expenses, to us	\$1.88	\$47,000,000

(1) See the section entitled “Underwriting” for a description of the compensation payable to the underwriters.

We have granted the underwriters an option to purchase up to an additional 3,750,000 shares of common stock from us at the public offering price, less underwriting discounts and commissions, within 30 days from the date of this prospectus supplement.

Neither the SEC 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 underwriters expect to deliver the shares of common stock against payment on or about March 27, 2025.

Joint Book-running Managers

TD Cowen**Barclays****BTIG***Lead Managers***H.C. Wainwright & Co.****The Benchmark Company**

The date of this prospectus supplement is March 25, 2025

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Prospectus

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is composed of two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of common stock, including the price, the number of shares of our common stock being offered, the risks of investing in this offering of our common stock and certain other matters relating to us and our financial condition. This prospectus supplement also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part of this document is the accompanying prospectus, dated September 9, 2022, which is included as part of our shelf registration statement on [Form S-3 \(File No. 333-267225\)](#). That registration statement and the accompanying prospectus provide more general information about securities that we may offer from time to time, some of which may not apply to this offering. It is important for you to read and consider carefully all information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus before investing in our common stock. See the sections entitled “*Where You Can Find More Information*” and “*Incorporation by Reference*” for additional information.

This prospectus supplement describes the terms of this offering of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus supplement. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or documents previously filed with the SEC that are incorporated by reference herein, the information in this prospectus supplement will supersede such information.

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to “we,” “our,” “us,” “our company” and “the Company” refer to Humacyte, Inc. and its consolidated subsidiaries.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We report our financial results in accordance with United States (“U.S.”) generally accepted accounting principles. All financial data in this prospectus supplement for the year ended December 31, 2024 is preliminary, as financial close procedures for the year ended December 31, 2024 are not yet complete. These estimates are not a comprehensive statement of our financial position for the year ended December 31, 2024. Actual results may differ materially from these estimates as a result of the completion of normal year-end accounting procedures and adjustments, including the execution of our internal control over financial reporting, the completion of the preparation and management’s review of our financial statements for the year ended December 31, 2024 and the subsequent occurrence or identification of events prior to the filing of the financial results for the year ended December 31, 2024 on Form 10-K with the SEC.

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

Neither we nor the underwriters have authorized anyone to provide you with information that is different or in addition to that contained or incorporated by reference in this prospectus supplement or the accompanying prospectus prepared by us or on our behalf. Neither we nor the underwriters take any responsibility for, and can provide no assurance as to the reliability of, any information that others may give. You should not assume that the information in this prospectus supplement and the accompanying prospectus is accurate as of any date other than the respective date of each of those documents, or that any information in documents that we have incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or any sale of shares of our common stock hereunder. Our business, financial condition, results of operations and prospects may have changed since those dates.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement and the accompanying prospectus may not be offered or sold, directly or indirectly, nor may this prospectus supplement, the accompanying prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement and the accompanying prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference herein contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements reflect our current views with respect to, among other things, future events and our financial performance. Any statements about our management’s expectations, beliefs, plans, predictions, forecasts, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as “anticipate,” “believes,” “can,” “could,” “may,” “predicts,” “potential,” “should,” “will,” “estimate,” “plans,” “projects,” “continuing,” “ongoing,” “expects,” “intends” and similar words or phrases. All forward-looking statements, expressed or implied, included herewith are expressly qualified in their entirety by the cautionary statements contained or referred to herein. The inclusion of forward-looking information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein should not be regarded as a representation by us or any other person that the future plans, estimates or expectations contemplated by us will be achieved. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. Factors that may affect our results are disclosed in “*Risk Factors*” beginning on page [S-10](#) of this prospectus supplement, and in the documents incorporated by reference herein and in the accompanying prospectus supplement. Some of the risks and uncertainties that may cause our actual results, performance or achievements to differ materially from those expressed include, but are not limited to, the following:

- our plans and ability to commercialize SYMVESS™ (acellular tissue engineered vessel-tyod or “ATEV™”) and, if approved by regulatory authorities, our product candidates, successfully and on our anticipated timelines;
- the degree of market acceptance of and the availability of third-party coverage and reimbursement for SYMVESS and, if approved by regulatory authorities, our product candidates;
- our ability to manufacture SYMVESS and, if approved by regulatory authorities, our product candidates in sufficient quantities to satisfy our clinical trial and commercial needs;
- the expected size of the target populations for SYMVESS and, if approved by regulatory authorities, our product candidates;
- the anticipated benefits of our ATEVs relative to existing alternatives;
- our assessment of the competitive landscape;
- our plans and ability to execute product development, process development and preclinical development efforts successfully and on our anticipated timelines;
- our plans, anticipated timeline and ability to file applications for, and obtain marketing approvals from the U.S. Food and Drug Administration (“FDA”) and other regulatory authorities, including the European Medicines Agency, for our ATEVs and product candidates;
- our ability to design, initiate and successfully complete clinical trials and other studies for our product candidates and our plans and expectations regarding our ongoing or planned clinical trials, including for our V007 and V012 Phase 3 clinical trials;
- the outcome of our ongoing discussions with the FDA concerning the design of our clinical trials;
- our ability to use our proprietary scientific technology platform to build a pipeline of additional product candidates;
- the characteristics and performance of our ATEVs;
- our expectations regarding our strategic partnership with Fresenius Medical Care Holdings, Inc. to sell, market and distribute our 6 millimeter ATEV for certain specified indications and in specified markets, if approved by regulatory authorities;
- the performance of other third parties on which we rely, including our third-party manufacturers, our licensors, our suppliers and the organizations conducting our clinical trials;

- our ability to obtain and maintain intellectual property protection for our product candidates as well as our ability to operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of others;
- our ability to maintain the confidentiality of our trade secrets, particularly with respect to our manufacturing process;
- our compliance with applicable laws and regulatory requirements, including FDA regulations, healthcare laws and regulations, and anti-corruption laws;
- our ability to attract, retain and motivate qualified personnel and to manage our growth effectively;
- our estimates regarding how long our existing cash and cash equivalents will be sufficient to fund our anticipated operating expenses, capital expenditures and debt service obligations;
- our future financial performance and capital requirements, including our ability to raise additional capital in the future;
- our ability to implement and maintain effective internal controls;
- the potential liquidity and trading of our securities;
- the impact of the overall global economy and increasing interest rates and inflation on our business;
- our involvement in existing or potential claims and legal proceedings, and the merits, potential outcomes and effects of both existing and potential claims and legal proceedings, as well as regulatory determinations, on our business, prospects, financial condition and results of operations; and
- the anticipated use of proceeds from this offering.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein.

These forward-looking statements are only predictions based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including those described in “*Risk Factors*” and elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. Moreover, we operate in a competitive industry, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein.

The forward-looking statements included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein are made only as of the date of the respective document. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We do not undertake any obligation to update publicly any forward-looking statements for any reason after the date of this prospectus supplement to conform these statements to actual results or to changes in expectations, except as required by law.

You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein with the understanding that the actual future results, levels of activity, performance, events and circumstances of Humacyte may be materially different from what is expected.

PROSPECTUS SUPPLEMENT SUMMARY

The following summary provides a brief overview of certain information appearing elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, which are described under "Incorporation of Certain Documents by Reference." Because it is a summary, it does not contain all the information that may be important to you. Before making an investment decision, you should read this entire prospectus supplement and the accompanying prospectus carefully, including the section entitled "Risk Factors" beginning on page [S-10](#) of this prospectus supplement, and in the documents incorporated by reference herein and in the accompanying prospectus, including the financial statements and the accompanying notes contained in such documents.

Company Overview

Humacyte is pioneering the development and manufacture of off-the-shelf, universally implantable, bioengineered human tissues, advanced tissue constructs and organ systems with the goal of improving the lives of patients and transforming the practice of medicine. We believe our regenerative medicine technology has the potential to overcome limitations in existing standards of care and address the lack of significant innovation in products that support tissue repair, reconstruction and replacement. We are leveraging our novel, scalable technology platform to develop proprietary bioengineered, acellular human tissues for use in the treatment of diseases and conditions across a range of anatomic locations in multiple therapeutic areas.

On December 19, 2024, the FDA granted a full approval for SYMVESS for use in adults as a vascular conduit for extremity arterial injury when urgent revascularization is needed to avoid imminent limb loss, and when autologous vein graft is not feasible. In February 2025, the FDA completed its required review of commercial batch information for SYMVESS and has authorized Humacyte to commence commercial shipments.

Additional information about us and our subsidiaries is included in documents incorporated by reference in this prospectus. See the sections entitled "Where You Can Find More Information" and "Incorporation by Reference."

Corporate Information

Our common stock is traded on Nasdaq under the symbol "HUMA." The mailing address of our principal executive office is 2525 East North Carolina Highway 54, Durham, North Carolina 27713, and our telephone number is (919) 313-9633. Our website address is <http://www.humacyte.com>. The information contained in, or that can be accessed through, our website is not part of this prospectus. We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC.

Preliminary Financial Information for the Year Ended December 31, 2024

We have not finalized our financial statements as of and for the year ended December 31, 2024. Based on our current estimates, we expect to report that we had approximately \$95.3 million in cash, cash equivalents and restricted cash (of which \$50.4 million is restricted cash) as of December 31, 2024. The actual amounts that we report will be subject to our financial closing procedures and any final adjustments that may be made prior to the time our financial results for the year ended December 31, 2024 are finalized and filed with the SEC. The preliminary financial data included herein has been prepared by, and is the responsibility of, our management. PricewaterhouseCoopers LLP has not audited, reviewed, examined, compiled, or applied agreed-upon procedures with respect to the preliminary financial data and, accordingly, does not express an opinion or any other form of assurance with respect thereto. This estimate should not be viewed as a substitute for financial statements prepared in accordance with accounting principles generally accepted in the United States and it is not necessarily indicative of the results to be achieved in any future period. Accordingly, you should not place undue reliance on this preliminary estimate. We assume no duty to update this preliminary estimate except as required by law.

Purchase Rights

On May 12, 2023, we and Humacyte Global, Inc. entered into a Revenue Interest Purchase Agreement (the “Revenue Interest Purchase Agreement”) with two purchasers, both affiliates of Oberland Capital Management LLC (the “Purchasers”), and another affiliate of Oberland Capital Management LLC, as agent for the Purchasers. Concurrently with our entry into the Revenue Interest Purchase Agreement, we entered into an Option Agreement, dated as of May 12, 2023 (the “Option Agreement”), with the Purchasers, pursuant to which we are required to offer to the Purchasers the right to purchase our equity securities in connection with a sale or issuance of any equity securities to a third party for cash at a price per share that is, or could be, lower than \$7.50, subject to certain exceptions. The Purchasers have the right to purchase our equity securities on the same terms and timeline as the third-party investors, in an aggregate amount up to \$10 million, less the aggregate Exercise Amounts (as defined in the Option Agreement) of all shares purchased under the Option Agreement and the aggregate amount purchased in connection with any other of our offerings pursuant to this right. To date, the Purchasers have exercised their right under the Option Agreement to purchase an aggregate of \$1.95 million of our equity securities. We must provide the Purchasers at least as much advance notice of any such opportunity to purchase our equity securities as we do to any potential third-party investor.

Litigation Update

On November 18, 2024, James A. Cutshall filed a putative class action lawsuit, captioned Cutshall v. Humacyte, Inc., et al., No. 1:24-cv-00954 (the “Securities Litigation”), against Humacyte and certain of Humacyte’s officers in the United States District Court for the Middle District of North Carolina. The complaint in the Securities Litigation asserts claims under Sections 10(b) and 20(a) of the Exchange Act on behalf of a putative class of persons and entities that purchased or otherwise acquired securities of Humacyte between May 10, 2024 and October 17, 2024, based on allegations that the defendants made or were responsible for false or misleading statements and omissions related to the Biologics License Application (“BLA”) for the vascular trauma indication and to alleged deficiencies at Humacyte’s Durham, North Carolina manufacturing facility. The complaint seeks a variety of relief, including unspecified compensatory damages, attorneys fees and costs. On January 31, 2025, the court appointed co-lead plaintiffs. On February 19, 2025, the court entered a scheduling order directing the co-lead plaintiffs to file a consolidated amended complaint by April 24, 2025 and the defendants to answer or otherwise respond to the amended complaint by June 27, 2025.

On January 7 and 10, 2025, putative stockholders of Humacyte filed two verified stockholder derivative actions in the United States District Court for the Middle District of North Carolina, captioned Silva v. Sebelius, et al., No. 1:25-cv-00005 (the “Silva Action”) and Misko v. Niklason, et al., No. 1:25-cv-00028 (the “Misko Action”). Each of these derivative actions was brought on behalf of Humacyte against certain of its current or former directors and officers, as well as Ayabudge LLC, an entity affiliated with one of our directors. The complaints in each action assert claims for violations of Section 14(a) of the Exchange Act, breach of fiduciary duty, unjust enrichment, abuse of control, gross mismanagement, and waste of corporate assets, based on a variety of allegations including claims that the defendants are responsible for any damages sustained by Humacyte as a result of the Securities Litigation. The Misko Action also includes a claim for contribution against certain defendants under Sections 10(b) and 21(d) of the Exchange Act for any liability Humacyte may sustain as a result of the Securities Litigation. On February 18, 2025, the court issued an order consolidating the Silva Action and the Misko Action (collectively, the “Consolidated Derivative Action”) and staying the defendants’ obligation to respond to any complaint in the Consolidated Derivative Action pending the submission of a proposed scheduling order. On March 11, 2025, the parties entered a joint motion to stay the Consolidated Derivative Action pending final resolution of the Securities Litigation. On March 24, 2025, the court granted the parties’ joint motion to stay the Consolidated Derivative Action.

On December 19, 2024, Humacyte received a demand letter (the “Demand Letter”) from a purported stockholder of Humacyte, demanding that Humacyte’s board of directors (the “Board”) assert claims against certain of Humacyte’s current or former officers and directors for breach of fiduciary duty, gross mismanagement, corporate waste, unjust enrichment, aiding and abetting, violations of Section 14(a) of the Exchange Act, and insider trading, based on a variety of allegations including claims that Humacyte’s

current and former officers and directors are responsible for any damages sustained by Humacyte as a result of the Securities Litigation. On January 24, 2025, the Board appointed a demand evaluation committee to evaluate the claims made in the Demand Letter and report back to the full Board. On February 19, 2025, the purported stockholder who sent the Demand Letter filed a stockholder derivative action in the United States District Court for the Middle District of North Carolina, captioned Olson v. Niklason, et al., No. 1:25-cv-00123 (the “Olson Action”), alleging that Humacyte had refused his demand. The complaint in the Olson Action asserts substantive claims and allegations that are substantially similar to those asserted in the Consolidated Derivative Action.

Humacyte disputes all claims asserted against it in the Securities Litigation and disputes that the plaintiffs in the Consolidated Derivative Action and Olson Action have standing to assert claims derivatively on its behalf. Humacyte is currently unable to estimate the potential loss or range of loss, if any, associated with these lawsuits, which could be material.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

As a company with less than \$1.235 billion of revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). We may remain an emerging growth company until December 31, 2025 or until such earlier time as we have \$1.235 billion or more in annual gross revenue, the market value of our stock held by non-affiliates is \$700 million or more as of the last business day of our most recently completed second fiscal quarter or we issue more than \$1 billion of non-convertible debt over a three-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure and other requirements that are applicable to other public companies that are not emerging growth companies.

We are also a “smaller reporting company,” meaning that the market value of our stock held by non-affiliates was less than \$700 million measured on the last business day of our most recently completed second fiscal quarter, and our annual revenue was less than \$100 million during our most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than \$250 million measured on the last business day of our second fiscal quarter or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than \$700 million measured on the last business day of our second fiscal quarter. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. For so long as we remain a smaller reporting company, we are permitted and intend to rely on exemptions from certain disclosure and other requirements that are applicable to other public companies that are not smaller reporting companies.

THE OFFERING	
Issuer	Humacyte, Inc.
Common stock to be offered by us	25,000,000 shares (or 28,750,000 shares if the underwriters exercise in full their option to purchase additional shares).
Common stock to be outstanding after this offering	144,842,940 shares (or 148,592,940 shares if the underwriters exercise in full their option to purchase additional shares).
Option to purchase additional shares	We have granted the underwriters an option to purchase up to 3,750,000 additional shares of our common stock. This option is exercisable, in whole or in part, for a period of 30 days from the date of this prospectus supplement.
Use of Proceeds	<p>We estimate that the net proceeds we will receive from this offering will be approximately \$46.6 million (or approximately \$53.7 million if the underwriters exercise in full their option to purchase additional shares), after deducting underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds from this offering to fund the commercialization of SYMVESS in the vascular trauma indication, the development of the product candidates in our pipeline and for working capital and general corporate purposes. See “<i>Use of Proceeds</i>” on page S-17 of this prospectus supplement.</p>
Risk Factors	Investing in our common stock involves a high degree of risk. See “ <i>Risk Factors</i> ” beginning on page S-10 of this prospectus supplement and other information included in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.
Nasdaq Global Select Market symbol	HUMA
	<p>The number of shares of common stock that will be outstanding after this offering is based on 119,842,940 shares of common stock outstanding as of September 30, 2024, and excludes the following:</p> <ul style="list-style-type: none"> • 1,652 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024 at a weighted-average exercise price of \$4.01 per share under our 2005 Stock Option Plan, of which all options were vested as of September 30, 2024; • 3,726,781 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024, at a weighted-average exercise price of \$8.17 per share under our 2015 Omnibus Incentive Plan, of which 3,092,656 options were vested as of September 30, 2024; • 8,558,936 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024, at a weighted-average exercise price of \$3.58 per share under our 2021 Long-Term Incentive Plan, of which 1,359,435 options were vested as of September 30, 2024; • 5,588,506 shares of common stock issuable upon the exercise of outstanding warrants as of September 30, 2024, at a weighted average exercise price of \$11.41 per share; • 5,864,288 shares of our common stock reserved for future issuance as of September 30, 2024, under our 2021 Long-Term Incentive Plan; • 1,030,033 shares of our common stock available for future issuance as of September 30, 2024, under our 2021 Employee Stock Purchase Plan;

- 1,073,333 shares of our common stock issuable upon the exercise of the option outstanding as of September 30, 2024, at an assumed exercise price of \$7.50 per share under the Option Agreement, dated as of May 12, 2023, by and among the Company, TPC Investments III LP, and TPC Investments Solutions LP. The exercise price per share under the Option Agreement will be the greater of \$7.50 or the 15 day volume-weighted average price as of the exercise date;
- 12,300,000 shares of our common stock issuable as of September 30, 2024 pursuant to our Purchase Agreement (the "Purchase Agreement") with Lincoln Park Capital Fund, LLC ("Lincoln Park");
- 20,000,000 shares of our common stock issuable as of September 30, 2024 pursuant to our Open Market Sales Agreement with Jefferies LLC (the "Sales Agreement"); and
- 15,000,000 shares of our common stock issuable as contingent consideration upon the occurrence of certain triggering events in connection with our August 2021 merger with Alpha Healthcare Acquisition Corp.

Except as otherwise indicated, the information in this prospectus supplement assumes no exercise of the outstanding stock options or warrants described above after September 30, 2024 and no exercise by the underwriters of their option to purchase additional shares of our common stock.

The number of shares of our common stock to be outstanding immediately after this offering as shown above also does not include the (a) 5,681,820 shares of our common stock issued to an investor on October 7, 2024, (b) up to 5,681,820 shares of our common stock issuable to such investor upon the exercise of warrants outstanding as of October 7, 2024, (c) 2,808,988 shares of our common stock issued to an investor on November 15, 2024 and (d) up to 2,808,988 shares of our common stock issuable to such investor upon the exercise of warrants outstanding as of November 15, 2024.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should carefully consider the risks described below and those discussed in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, together with other information in this prospectus supplement, the accompanying prospectus and the information and documents incorporated by reference herein and therein. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment in our common stock.

Risks Related to This Offering

Management will have broad discretion over the use of the proceeds from this offering, and may not use the proceeds effectively.

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value. Pending use, we may invest any net proceeds from this offering in a manner that does not produce income or loses value. Please see the section entitled “*Use of Proceeds*” on page [S-17](#) of this prospectus supplement for further information.

As an investor participating in this offering, you will experience immediate substantial dilution.

The price per share of our common stock being offered is substantially higher than the net tangible book value (deficit) per share of our common stock outstanding prior to this offering. As a result, investors purchasing common stock in this offering will experience dilution to the extent of the difference between the public offering price per share and the net tangible book value (deficit) per share of our common stock. After giving effect to the sale of 25,000,000 shares of our common stock in this offering at the public offering price of \$2.00 per share and based on our net tangible book value (deficit) as of September 30, 2024 of \$(0.53) per share, if you purchase shares of common stock in this offering you will suffer substantial and immediate dilution of \$2.12 per share in the net tangible book value of the common stock. The future exercise of outstanding options and warrants will result in further dilution of your investment. Additionally, we are party to (i) the Sales Agreement with Jefferies LLC, pursuant to which we have sold and may continue to sell shares of common stock for gross proceeds of up to \$80 million from time to time through an “at-the-market” equity offering program and (ii) the Purchase Agreement with Lincoln Park, pursuant to which we have sold and may continue to sell shares of common stock to Lincoln Park for gross proceeds of up to \$50 million from time to time through an equity line of credit. To the extent we sell additional shares of our common stock under the Sales Agreement or the Purchase Agreement, you will experience further dilution. See the section entitled “*Dilution*” below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

You may experience future dilution as a result of future equity offerings.

To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

The price of our common stock may be volatile.

The price of our common stock may fluctuate due to a variety of factors, including:

- actual or anticipated fluctuations in our quarterly and annual results and those of other public companies in our industry;

- mergers and strategic alliances in the industry in which we operate;
- market prices and conditions in the industry in which we operate;
- publication of negative news articles or other media releases which could affect public opinion about our products or result in increased regulatory scrutiny of our product and product candidates;
- changes in government regulation;
- potential or actual military conflicts or acts of terrorism;
- announcements concerning the Company or our competitors; and
- the general state of the securities markets.

These market and industry factors may materially reduce the market price of our common stock, regardless of our operating performance.

We have concluded that a substantial doubt is deemed to exist concerning our ability to continue as a going concern.

As discussed in our unaudited condensed consolidated financial statements, substantial doubt is deemed to exist about our ability to continue as a going concern. Our financial statements do not include any adjustment related to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should we be unable to continue as a going concern. Our ability to continue as a going concern will require us to generate positive cash flow from operations, obtain additional financing, enter into strategic alliances, or sell assets.

Operational Risks

Our near-term prospects are dependent on the success of SYMVESS, our sole FDA-approved product, and if we are unable to successfully commercialize it in the vascular trauma indication and obtain regulatory approval for SYMVESS in additional indications, our business, operating results and financial condition will be materially harmed.

Our business currently depends heavily on our ability to successfully commercialize SYMVESS in the United States and in other jurisdictions where we may obtain marketing approval. SYMVESS currently is our only product approved for sale in the US and, while we are developing a number of product candidates, we have invested and continue to invest a substantial portion of our efforts and financial resources in the development of SYMVESS. None of our remaining product geometries and modifications have advanced beyond preclinical development. As a result, in the near term we are dependent on the success of SYMVESS, and if we are unable to successfully commercialize it in the vascular trauma indication and obtain regulatory approval for SYMVESS in additional indications, our business, along with our operating results and financial condition, will be materially harmed. We may never be able to successfully commercialize SYMVESS or our product candidates or meet our expectations with respect to revenues for a number of reasons, including:

- a lack of acceptance of SYMVESS by physicians, patients, third-party payors and other members of the medical community;
- our limited experience in marketing, selling and distributing SYMVESS or any other product;
- our limited experience in the commercial manufacturing of SYMVESS or any other product;
- reimbursement and coverage policies of government and private payors such as Medicare, Medicaid, group purchasing organizations, insurance companies, health maintenance organizations and other plan administrators;
- our ability to expand the current FDA-approved indications for SYMVESS into treatment of pediatric patients, treatment of a broader set of traumas, or indications outside of trauma;
- emergence of new adverse events associated with SYMVESS once the product is in commercial use or data suggesting that known adverse events are more frequent or severe than originally thought;

- changed or increased regulatory restrictions in the United States, European Union and other foreign territories; and
- a lack of adequate financial or other resources to commercialize SYMVESS successfully.

For example, during its review of the SYMVESS BLA, the FDA identified concerns relating to mid-graft rupture or anastomotic failure of SYMVESS post-implantation. As a result, the FDA approved package insert for SYMVESS contains a boxed warning relating to mid-graft rupture or anastomotic failure, and as a condition of SYMVESS approval we are obliged to conduct a post-approval long-term observational study to further characterize these and other risks. If our post-approval study demonstrates that these or other risks associated with SYMVESS are more severe and/or more prevalent than currently understood, this may have adverse impacts on our business, including lack of market acceptance of our product, imposition of further warnings or limitations on distribution and/or use of SYMVESS, or revocation of our marketing authorization.

There is no guarantee that the infrastructure, systems, processes, policies, relationships, and materials we have built for the launch and commercialization of our approved product in the United States will be sufficient for us to achieve success at the levels we expect. Even our ability to generate product revenue and become profitable from SYMVESS depends on our assumptions regarding the relevant market opportunity and the degree of market acceptance for SYMVESS, and if approved, our other products, for which our estimates may prove inaccurate, and market acceptance in any approved indication, which may never occur.

The sizes of the market opportunities for SYMVESS or our product candidates have not been established with precision and are estimates that management believes to be reasonable. If these market opportunities are smaller than we estimate or if any approval that we obtain is based on a narrower definition of the relevant patient population, our revenue and ability to achieve profitability might be materially and adversely affected.

Our estimates of the market opportunity for SYMVESS and certain of our product candidates, if approved, are based on a number of internal and third-party estimates. While we believe our assumptions and the data underlying these estimates are reasonable, they may be inaccurate or based on imprecise data. In addition, the assumptions and conditions underlying the estimates may change at any time. For example, the number of patients who ultimately use SYMVESS or our product candidates, if approved by regulatory authorities, and our total market opportunities for SYMVESS or such product candidates, will depend on, among other things, pricing and reimbursement, market acceptance of those product candidates and patient access, and may be lower than we estimate. Additionally, the approval we received for SYMVESS in trauma includes only adults as a vascular conduit for extremity arterial injury when urgent revascularization is needed to avoid imminent limb loss, and autologous vein graft is not feasible. Any approval that we receive for our product candidates also may be based on a narrower definition of the relevant patient population than we have estimated. These and similar limitations on future products could materially harm our business, financial condition, results of operations and prospects.

The manufacture of SYMVESS and our product candidates is complex, we have limited experience manufacturing commercial product, and we have in the past and may in the future encounter batch failures and difficulties in production. If we or any third-party supplier encounter such difficulties, our ability to supply SYMVESS for commercial sale or our product candidates for clinical trials could be delayed or halted entirely.

The process of manufacturing our ATEVs, including SYMVESS, is complex, highly regulated and subject to multiple risks. The manufacture of biologics such as our ATEVs has been, and continues to be, susceptible to product loss and batch failures due to a range of factors including raw material and other component deficiencies, contamination, equipment failure, temporary power outages, improper installation or operation of equipment, damage to facilities, vendor or operator error, inconsistency in yields, variability in product and raw material characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes has resulted, and could in the future result, in reduced production yields, batch failures, product defects and other supply disruptions. For example, from time to time we have had multiple batch failures in succession. We believe we have identified the root cause of those failures and have implemented appropriate corrective actions. However, if our corrective actions are not successful, or if the FDA disagrees with our root cause analysis or our corrective actions, it may delay or

disrupt our manufacturing operations or delay or prevent the filing or approval of marketing applications for our ATEVs. If microbial, viral or other contaminations are discovered in SYMVESS or our product candidates, or in the manufacturing facilities in which our products are made, manufacturing may be delayed or disrupted for an extended period of time to investigate and remedy the contamination, which would harm our business, operating results and financial condition as well as our reputation. We depend on cell banks in our manufacturing process, and the loss or alteration of our master cell banks would result in significant disruptions to that process.

We currently manufacture SYMVESS for initial commercial distribution and 6 millimeter ATEVs for our clinical trials at our manufacturing facility in Durham, North Carolina, where we have created a scalable modular manufacturing process, which we refer to as the LUNA200 system, that we believe will enable us to manufacture SYMVESS in commercial quantities in compliance with current good manufacturing practices ("cGMPs"). Our efforts to scale out our manufacturing operations may not succeed. Scaling out a biologic manufacturing process is a difficult task, as there are risks including, among others, cost overruns, process reproducibility, stability issues, lot consistency and timely availability of raw materials. We have limited years of experience manufacturing our ATEVs in-house with the LUNA200 system, and no experience manufacturing the volume of SYMVESS and our ATEV product candidates that we anticipate will be required to achieve planned levels of commercial sales and to supply all of our clinical trials. Additionally, our manufacturing process has evolved over time and we may not have the experience, resources, or facility capacity to handle adoption of future changes or expansion of capacity. The forecasts of demand we plan to use to determine order quantities and lead times for components from outside suppliers may be incorrect, and we may be unable to obtain such components when needed and at a reasonable cost. We also have experienced interruptions in the supply of the raw materials required to manufacture our products, and increased costs due to supply chain disruptions or inflation in the cost of goods, services or other operating inputs. Likewise, supply chain interruptions could affect the transport of SYMVESS or our clinical trial materials, such as our investigational ATEVs and other supplies, which would negatively impact our ability to conduct our clinical trials or commercialize our product. In addition, we may not be able to develop and implement efficient manufacturing capabilities and processes to manufacture our ATEVs in sufficient volumes that also satisfy the legal, regulatory, quality, price, durability, engineering, design and production standards required to commercialize our ATEVs, including SYMVESS, successfully.

If we are unable to produce sufficient quantities of SYMVESS for commercialization or our investigational ATEVs for our clinical trial needs, we may need to make additional changes to our manufacturing processes and procedures. Such changes to our manufacturing platform could trigger the need to conduct additional bridging studies between our prior clinical supply and that of any new manufacturing processes and procedures. Should we experience delays or be unable to produce sufficient quantities of our ATEVs, including SYMVESS, utilizing our current or a modified version of our manufacturing system, we expect that our development and commercialization efforts would be impaired as a result, which would likely materially adversely affect our business, prospects, operating results and financial condition.

Even though we received marketing approval for SYMVESS, we continue to be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and subject us to significant penalties if we fail to comply with applicable regulatory requirements.

SYMVESS and any other product candidates for which we also obtain marketing approval in the United States, will be subject to ongoing regulatory requirements from the FDA and, if approved elsewhere, from applicable non-U.S. regulatory authorities. Any marketing approval that we receive for our product candidates may be subject to limitations on the indicated uses for which the product may be marketed or contain requirements for potentially costly post-marketing follow-up trials to monitor the safety and efficacy of the product. For example, the FDA's approval of SYMVESS includes requirements to conduct an open-label study to assess the safety and efficacy of SYMVESS in certain patients 17 years of age or younger, as well as a long-term observational study to further characterize the risk of graft failure and infection in patients with extremity vascular injury who have received SYMVESS for the approved indication. The FDA could also approve our product candidates with a REMS, which could include significant restrictions on distribution and/or use of our products. In addition, we are subject to extensive and ongoing post-approval regulatory requirements for SYMVESS by the FDA, and if approved elsewhere, by other non-U.S. regulatory

authorities, with regard to the manufacturing, labelling, packaging, adverse event reporting, storage, advertising, distribution, promotion and recordkeeping for SYMVESS and any other product candidates that may receive marketing approval. If we fail to comply with regulatory requirements of the FDA and, if relevant, other non-U.S. regulatory authorities, we could be subject to administrative or judicially imposed sanctions, including the following:

- issuance of warning letters or untitled letters by regulatory authorities asserting that we are in violation of the law;
- imposition of injunctions or significant civil monetary penalties or pursuit by regulatory authorities of civil or criminal prosecutions and fines or other civil and/or criminal penalties against us or our responsible officers;
- suspension or withdrawal of marketing approval;
- suspension of any ongoing clinical trials or refusal by regulatory authorities to approve pending marketing applications or supplements to approved applications;
- seizure of products or refusal to allow us to enter into supply contracts, including government contracts, or to import or export products;
- voluntary or mandatory product recalls and publicity requirements; and
- restrictions on operations, including marketing efforts, or restrictions that mandate costly new manufacturing requirements.

Any of these events could reduce market acceptance of SYMVESS or any of our product candidates that had received marketing approval, substantially reduce our revenue, increase the costs of operating our business, and cause us significant reputational damage, among other consequences. If we ultimately receive approval for SYMVESS or any of our product candidates in jurisdictions outside the United States, we expect to be subject to similar ongoing regulatory oversight by the relevant foreign regulatory authorities.

Our products may be subject to product recalls that could harm our reputation and could materially and adversely affect our business, financial condition, operating results, cash flows and prospects. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about approved products. In particular, while the FDA permits the dissemination of truthful and non-misleading information about an approved product, the FDA restricts our ability to promote a product for uses that are not approved by the FDA. The misuse or off-label use of our product may harm our reputation in the marketplace, result in injuries that lead to product liability suits or result in costly investigations, fines or sanctions by regulatory authorities if we are deemed to have engaged in the promotion of these uses, any of which could be costly to our business. We may also face risks in other non-U.S. jurisdictions from product recalls and advertising/promotion rules.

We could also face product liability suits or regulatory delays due to defects in our products, which could be expensive and time-consuming and result in substantial damages payable by us and increases in our insurance rates.

We are and may continue to be subject to legal and other proceedings that could cause us to incur significant expenses, divert our management's attention, and materially harm our business, financial condition, and operating results.

We and our affiliates currently are subject to various lawsuits and demands. These proceedings, as well as any litigation, government inquiries or investigations, regulatory proceedings, as well as personal injury or class action claims and lawsuits, and securities, commercial and intellectual property infringement matters that we could face in the future, can be protracted and expensive, and have results that are difficult to predict. Determining reserves for pending litigation and other legal and regulatory matters requires significant judgment, and there can be no assurance that our expectations or estimates will prove correct. Adverse outcomes with respect to any of these legal proceedings may result in significant settlement costs or judgments, penalties and fines. Even if these proceedings are resolved in our favor, the time and resources necessary to resolve them, or public scrutiny related to them, could divert the resources of our management and require significant expenditures.

There is uncertainty with respect to third-party coverage and reimbursement of SYMVESS and our product candidates, if approved. They may also be subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, any of which could harm our business, prospects, operating results and financial condition.

There is uncertainty around third-party coverage and reimbursement of newly approved regenerative medicine type products, including SYMVESS. In the United States, third-party payors, including government payors such as the Medicare and Medicaid programs, play an important role in determining the extent to which medical products and biologics will be covered and reimbursed. The Medicare and Medicaid programs increasingly are used as models for how private payors and government payors develop their coverage and reimbursement policies. Currently, no RMAT tissue engineered product has established coverage and reimbursement by the CMS. It is difficult to predict what CMS or any comparable foreign regulatory agency will decide with respect to coverage and reimbursement for novel products such as SYMVESS or our product candidates, as there is no body of established practices and precedents for these types of products.

The healthcare industry is acutely focused on cost containment, both in the United States and elsewhere. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement. These payors may not view SYMVESS and our other products, if approved, as cost-effective, and coverage and reimbursement may not be available to our customers or may not be sufficient to allow our products to be marketed on a competitive basis. Cost control initiatives could also cause us to decrease any price we might establish for our products, which could result in lower than anticipated product revenue. Moreover, eligibility for reimbursement does not imply that any such product will be paid for in all cases or at a rate that covers our costs, including our costs related to research, development, manufacture, sale and distribution. Reimbursement rates may vary, by way of example, according to the use of SYMVESS or our other products, if approved, and the clinical setting in which it is used. If the prices for our products, if any, decrease or if governmental and other third-party payors do not provide adequate coverage or reimbursement, our business, prospects, operating results and financial condition will suffer, perhaps materially.

On August 16, 2022, President Biden signed the IRA into law, which sets forth meaningful changes to drug product reimbursement by Medicare. Among other actions, the IRA permits HHS to engage in price-capped negotiation to set the price of certain drugs and biologics reimbursed under Medicare Part B and Part D. The IRA contains statutory exclusions to the negotiation program, including for certain orphan designated drugs for which the only approved indication (or indications) is for the orphan disease or condition. Should SYMVESS or our other products, if approved, be covered by Medicare Part B or Part D, and fail to fall within a statutory exclusion, such as that for an orphan drug, SYMVESS or our other products could, after a period of time, be selected for negotiation and become subject to prices representing a significant discount from average prices to wholesalers and direct purchasers. The IRA also establishes a rebate obligation for drug manufacturers that increase prices of Medicare Part B and Part D covered drugs at a rate greater than the rate of inflation. The inflation rebates may require us to pay rebates if we increase the cost of a product covered by Medicare Part B or Part D faster than the rate of inflation. In addition, the law eliminates the “donut hole” under Medicare Part D beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost and requiring manufacturers to subsidize, through a newly established manufacturer discount program, 10% of Part D enrollees’ prescription costs for brand drugs below the out-of-pocket maximum and 20% once the out-of-pocket maximum has been reached. Our cost-sharing responsibility for any approved product covered by Medicare Part D could be significantly greater under the newly designed Part D benefit structure compared to the pre-IRA benefit design. Additionally, manufacturers that fail to comply with certain provisions of the IRA may be subject to penalties, including civil monetary penalties. The IRA is anticipated to have significant effects on the pharmaceutical industry and may reduce the prices we can charge and reimbursement we can receive for our products, among other effects.

Any reduction in reimbursement from Medicare resulting from the IRA or other legislative or policy changes, or from other government programs may result in a similar reduction in payments from private payors. These healthcare reforms and the implementation of any future cost containment measures or other reforms may prevent us from being able to generate sufficient revenue, attain and/or maintain profitability or commercialize our drug candidates. We cannot be sure whether additional legislative changes will be enacted, or the effect of forthcoming guidance implementing the IRA, or whether FDA regulations,

guidance or interpretations will be changed, or what the impact of such changes on our product candidates or the marketing approvals of our product candidates, if any, may be.

In some countries, particularly in Europe, the pricing of our product may be subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products, if approved, is unavailable or more limited in scope or amount than we anticipate, or if pricing is set at even lower levels than we anticipate, our business could be harmed, possibly materially.

We rely on third-party suppliers, including sole source suppliers, to provide certain components for SYMVESS and our product candidates. Any failure by a third-party supplier to supply these components for manufacture may delay or impair our ability to commercialize SYMVESS and to complete our clinical trials for our product candidates.

We currently rely, and expect to continue to rely, on third parties for the supply of certain components necessary for SYMVESS and our product candidates, such as donor tissue, other biologically derived substances, human serum, the PGA polymer mesh and the bioreactor bags in which our ATEVs are grown. Our suppliers for certain of these materials, including SeraCare for the supply of human plasma and Confluent for the supply of polymer mesh, are sole source suppliers. Failure of one or more of our suppliers, including these sole source suppliers, to deliver components necessary for the production of our ATEVs in a timely and sufficient manner, whether due to shortages of such materials, difficulties in scaling up supply to satisfy our clinical trial and commercial needs, contamination, recall, pandemics or otherwise, or to source or manufacture such components in accordance with cGMPs and cGTPs, as applicable, could delay our ability to commercialize SYMVESS, which would reduce revenue from our sole approved product, or to complete our clinical trials, obtain marketing approval for and commercialize our product candidates. Establishing additional or replacement suppliers for these components could take a substantial amount of time and it may be difficult to establish replacement suppliers who meet regulatory requirements. In addition, as part of the FDA's approval of our product candidates, the FDA must review and approve the individual components of our production process, which includes raw materials, the manufacturing processes and facilities of our suppliers. Some of our current suppliers have not undergone this process nor have they had any components included in any product approved by the FDA. If our suppliers fail to comply with applicable regulations, and if we do not qualify alternate suppliers, the clinical development, marketing approval or commercialization of our product candidates could be delayed, thereby increasing our costs to complete clinical development and to obtain marketing approval and depriving us of potential product revenue.

Changes in U.S. government policies under the Trump administration, including increased tariffs and reductions in federal research funding, could adversely affect our business.

Recent policy actions by the Trump administration, including the imposition of new tariffs on imported materials and goods from certain foreign countries, including Canada, Mexico and China, and the temporary freeze on federal grants and loans, may have an adverse impact on our business. Increased tariffs on critical raw materials, components, and finished goods could raise our production costs, disrupt our supply chain, and reduce our competitiveness in the marketplace. Additionally, the administration's halt on certain federal research grants may negatively impact our industry. Any prolonged reductions in such funding could slow innovation, delay collaborations, and limit the adoption of new technologies that contribute to our business growth. If these or similar policy changes continue or expand, we may face increased costs. Although we cannot predict the full extent of these impacts, any prolonged disruption could adversely affect our business, financial condition, and results of operations.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately \$46.6 million, or approximately \$53.7 million if the underwriters exercise in full their option to purchase additional shares, in each case, after deducting underwriting discounts and commissions and the estimated offering expenses payable by us.

We currently intend to use the net proceeds from the sale of the securities offered hereby to fund the commercialization of SYMVESS in the vascular trauma indication, the development of the product candidates in our pipeline and for working capital and general corporate purposes. Pending these uses, we expect to invest the net proceeds in short-term U.S. treasury money market mutual funds.

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 and the documents incorporated by reference herein and in the accompanying prospectus supplement, 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.

DILUTION

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

As of September 30, 2024, our historical net tangible book value (deficit) was \$(63.7) million, or \$(0.53) per share of common stock. Historical net tangible book value (deficit) per share represents our historical net tangible book (deficit) value divided by the 119,842,940 shares of our common stock outstanding as of September 30, 2024.

After giving effect to our issuance and sale of 25,000,000 shares of our common stock in this offering at a public offering price of \$2.00 per share of common stock, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value (deficit) as of September 30, 2024 would have been \$(17.1) million, or \$(0.12) per share. This represents an immediate increase in as adjusted net tangible book value (deficit) per share of \$0.41 to existing stockholders and an immediate dilution of \$2.12 in as adjusted net tangible book value (deficit) per share to investors purchasing common stock in this offering. Dilution per share to investors purchasing common stock in this offering is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by investors. The following table illustrates this dilution on a per share basis:

Public offering price per share	\$ 2.00
Net tangible book value (deficit) per share as of September 30, 2024	\$(0.53)
Increase in net tangible book value (deficit) per share attributable to investors purchasing shares in this offering	<u>0.41</u>
As adjusted net tangible book value (deficit) per share as of September 30, 2024, after giving effect to this offering	<u>(0.12)</u>
Dilution per share to investors purchasing our common stock in this offering	<u><u>\$ 2.12</u></u>

If the underwriters exercise in full their option to purchase additional shares of common stock, less the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value at September 30, 2024, after giving effect to this offering, would be approximately \$(10.1) million, or approximately \$(0.07) per share, representing an increase in net tangible book value of \$0.46 per share to existing stockholders and immediate dilution in net tangible book value of \$2.07 per share to investors in this offering at the public offering price.

The foregoing table and calculations are based on 119,842,940 shares of our common stock outstanding as of September 30, 2024, and exclude:

- 1,652 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024 at a weighted-average exercise price of \$4.01 per share under our 2005 Stock Option Plan, of which all options were vested as of September 30, 2024;
- 3,726,781 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024, at a weighted-average exercise price of \$8.17 per share under our 2015 Omnibus Incentive Plan, of which 3,092,656 options were vested as of September 30, 2024;
- 8,558,936 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024, at a weighted-average exercise price of \$3.58 per share under our 2021 Long-Term Incentive Plan, of which 1,359,435 options were vested as of September 30, 2024;
- 5,588,506 shares of common stock issuable upon the exercise of outstanding warrants as of September 30, 2024, at a weighted average exercise price of \$11.41 per share;
- 5,864,288 shares of our common stock reserved for future issuance as of September 30, 2024, under our 2021 Long-Term Incentive Plan;
- 1,030,033 shares of our common stock available for future issuance as of September 30, 2024, under our 2021 Employee Stock Purchase Plan;

- 1,073,333 shares of our common stock issuable upon the exercise of the option outstanding as of September 30, 2024, at an assumed exercise price of \$7.50 per share under the Option Agreement, dated as of May 12, 2023, by and among the Company, TPC Investments III LP, and TPC Investments Solutions LP. The exercise price per share under the Option Agreement will be the greater of \$7.50 or the 15 day volume-weighted average price as of the exercise date;
- 12,300,000 shares of our common stock issuable as of September 30, 2024 pursuant to our Purchase Agreement;
- 20,000,000 shares of our common stock issuable as of September 30, 2024 pursuant to our Sales Agreement; and
- 15,000,000 shares of our common stock issuable as contingent consideration upon the occurrence of certain triggering events in connection with our August 2021 merger with Alpha Healthcare Acquisition Corp.

In addition, the foregoing table and calculations also exclude the (a) 5,681,820 shares of our common stock issued to an investor on October 7, 2024, (b) up to 5,681,820 shares of our common stock issuable to such investor upon the exercise of warrants outstanding as of October 7, 2024, (c) 2,808,988 shares of our common stock issued to an investor on November 15, 2024 and (d) up to 2,808,988 shares of our common stock issuable to such investor upon the exercise of warrants outstanding as of November 15, 2024.

To the extent that outstanding options or warrants are exercised, investors purchasing shares in this offering could 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 equity-based securities, the issuance of these securities could result in further dilution to our stockholders.

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

The following discussion is a summary of the material U.S. federal income tax consequences of the purchase, ownership and disposition of our common stock by Non-U.S. Holders (as defined below) that acquire our common stock in this offering and hold it as a capital asset. This discussion does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the United States Internal Revenue Code of 1986, as amended, (“the Code”), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service (“IRS”), in each case in effect as of the date of this prospectus supplement. These authorities may change or be subject to differing interpretations at any time. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the statements made and the conclusions reached in the discussion below. There can be no assurance the IRS or a court will agree with our position discussed below regarding the U.S. federal income tax consequences of the purchase, ownership and disposition of our common stock. We cannot assure you that a change in law will not significantly alter the tax considerations described in this discussion.

This discussion does not address all U.S. federal income tax consequences that may be relevant to a Non-U.S. Holder’s particular circumstances, including the alternative minimum tax and the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons who have elected to mark securities to market or who hold our common stock 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, mutual funds and other financial institutions;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- “qualified foreign pension funds,” or entities wholly owned by a “qualified foreign pension fund”;
- brokers, dealers or traders in securities;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- tax-exempt organizations, pension plans, tax-qualified retirement plans, or governmental organizations; and
- persons deemed to sell our common stock under the constructive sale provisions of the Code.

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner and the activities of the partnership. Accordingly, partnerships (and other entities or arrangements so treated for U.S. federal income tax purposes) holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

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

Definition of a Non-U.S. Holder

For purposes of this discussion, a “Non-U.S. Holder” is any beneficial owner of our common stock that is, or is treated as, for U.S. federal income tax purposes:

- a non-resident alien;

- a foreign corporation (or any other entity treated as a corporation for U.S. federal income tax purposes);
- an estate, the income of which is not subject to U.S. federal income taxation regardless of its source; or
- a trust that does not have in effect a valid election under the U.S. Treasury Regulations, to be treated as a United States person and either (i) no court within the United States is able to exercise primary supervision over the trust's administration or (ii) no "United States person" (within the meaning of Section 7701(a)(30) of the Code) has the authority to control all substantial decisions of that trust.

Distributions on Common Stock

Distributions of cash or property on our common stock will generally constitute dividends for U.S. federal income tax purposes to the extent of 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 first constitute a tax-free return of capital to the extent of a Non-U.S. Holder's adjusted tax basis in its common stock and thereafter capital gain, which is subject to the tax treatment described below in the section entitled "— Sale or Other Taxable Disposition".

Subject to the discussion below in the sections entitled "— Information Reporting and Backup Withholding" and "— FATCA Withholding" and the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder will generally 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. To receive a reduced withholding rate, a Non-U.S. Holder must furnish a valid IRS Form W-8BEN or W-8BEN-E, as applicable, (or other applicable documentation) certifying qualification for the lower treaty rate. A Non-U.S. Holder that holds our common stock through a financial institution or other agent will be required to provide appropriate documentation to the financial institution or other agent, which then will be required to provide certification to us or our paying agent either directly or through other intermediaries. A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced income tax treaty rate, 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, as provided by an applicable income tax treaty, attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular rates that also apply to U.S. persons. A Non-U.S. Holder that is a 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 dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Sale or Other Taxable Disposition

Subject to the discussion below under "— Information Reporting and Backup Withholding" and "— FATCA Withholding," a Non-U.S. Holder generally will not be subject to U.S. federal income tax or withholding tax on any gain realized upon the sale or other taxable disposition of our common stock (including a redemption, but only if the redemption would be treated as a sale or exchange rather than a distribution for U.S. federal income tax purposes) unless:

- the gain is "effectively connected" with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), in which case the Non-U.S. Holder generally will be subject to U.S. federal income tax on a net income basis with

respect to such gain in the same manner as if such holder were a resident of the United States and, if the Non-U.S. Holder is a corporation for U.S. federal income tax purposes, may, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate (or at a lower rate under an applicable income tax treaty) on its “effectively connected” gains;

- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met, in which case the Non-U.S. Holder generally will be subject to U.S. federal income tax at a 30% rate (or at a lower rate under an applicable income tax treaty) on the gain derived from the sale, which gain may be offset by U.S.-source capital losses for the year; or
- we are or have been a United States real property holding corporation (“USRPHC” as described below) at any time within the shorter of the five-year period preceding the disposition or the Non-U.S. Holder’s holding period for our common stock (the “relevant period”) and the Non-U.S. Holder (i) disposes of our common stock during a calendar year when our common stock is no longer regularly traded on an established securities market or (ii) owned (actually and constructively) more than 5% of our common stock at any time during the relevant period, in which case such a Non-U.S. Holder will be subject to tax on the gain on the disposition of shares generally as if the gain were effectively connected with the conduct of a trade or business in the United States, except that the “branch profits tax” will not apply.

We believe we currently are not, and do not anticipate becoming, a USRPHC. Generally, a corporation is a USRPHC only if the fair market value of its United States real property interests (as defined in the Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business.

Information Reporting and Backup Withholding

Payments of dividends on our common stock and the payment of the proceeds from the sale of our common stock effected at a U.S. office of a broker generally will not be subject to backup withholding and the payment of proceeds from the sale of our common stock effected at a U.S. office of a broker will generally not be subject to information reporting, provided the applicable withholding agent does not have actual knowledge or reason to know the Non-U.S. Holder is a United States person and the Non-U.S. Holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN or W-8BEN-E, as applicable, or other documentation upon which it may rely to treat the payments as made to a Non-U.S. person in accordance with Treasury Regulations or otherwise establishes an exemption.

However, we are required to file information returns with the IRS in connection with any distribution on our common stock paid to a Non-U.S. Holder, regardless of whether any tax was actually withheld. Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Payment of the proceeds from the sale of our common stock effected at a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, a sale of our common stock by a Non-U.S. Holder that is effected at a foreign office of a broker will be subject to information reporting and backup withholding if (i) the proceeds are transferred to an account maintained by the Non-U.S. Holder in the United States, (ii) the payment of proceeds or the confirmation of the sale is mailed to the Non-U.S. Holder at a U.S. address or (iii) the sale has some other specified connection with the United States as provided in the Treasury Regulations, unless, in each case, the broker does not have actual knowledge or reason to know that the holder is a United States person and the documentation requirements described above are met or the Non-U.S. Holder otherwise establishes an exemption.

In addition, a sale of our common stock will be subject to information reporting if it is effected at a foreign office of a broker that is (i) a United States person, (ii) a “controlled foreign corporation” for U.S. federal income tax purposes, (iii) a foreign person 50% or more of whose gross income is effectively connected with the conduct of a U.S. trade or business for a specified three-year period or (iv) a foreign partnership, if at any time during its tax year (a) one or more of its partners are “U.S. persons,” as defined in the Treasury Regulations, who in the aggregate hold more than 50% of the income or capital interest in the partnership

or (b) such foreign partnership is engaged in the conduct of a trade or business in the United States, in each case unless the broker does not have actual knowledge or reason to know that the holder is a United States person and the documentation requirements described above are met or an exemption is otherwise established. Backup withholding will apply if the sale is subject to information reporting and the broker has actual knowledge that the holder is a United States person.

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.

FATCA Withholding

Sections 1471 through 1474 of the Code and the Treasury Regulations issued thereunder (commonly referred to as the Foreign Account Tax Compliance Act ("FATCA")) impose a 30% withholding tax on dividends paid on our shares to, and (subject to the proposed Treasury Regulations discussed below) the gross proceeds derived from the sale or other disposition of our shares by, a foreign entity if the foreign entity is:

- a "foreign financial institution" (as defined under FATCA) that does not furnish proper documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA withholding or (ii) its compliance (or deemed compliance) with specified due diligence, reporting, withholding and certification obligations under FATCA or (iii) residence in a jurisdiction that has entered into an intergovernmental agreement with the United States relating to FATCA and compliance with the diligence and reporting requirements of the intergovernmental agreement and local implementing rules; or
- a "non-financial foreign entity" (as defined under FATCA) that does not provide sufficient documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA or (ii) adequate information regarding substantial United States beneficial owners of such entity (if any).

Withholding under FATCA generally applies to payments of dividends on our shares and to payments of gross proceeds from a sale or other disposition of our shares. Withholding agents may, however, rely on proposed U.S. Treasury Regulations that would no longer require FATCA withholding on payments of gross proceeds. A withholding agent such as a broker, and not the Company, will determine whether or not to implement gross proceeds FATCA withholding.

If a dividend payment is subject to withholding both under FATCA and the withholding tax rules discussed above in the section entitled "— Distributions on Common Stock," the withholding under FATCA may be credited against, and therefore reduce, such other withholding tax. Holders of shares should consult their own tax advisors regarding these requirements and whether they may be relevant to their ownership and disposition of the shares.

Under certain circumstances, a Non-U.S. Holder will be eligible for refunds or credits of withholding taxes imposed under FATCA by filing a United States federal income tax return. Prospective investors should consult their tax advisors regarding the effect of FATCA on their ownership and disposition of our shares.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered by this prospectus supplement. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. TD Securities (USA) LLC, Barclays Capital Inc. and BTIG, LLC are the representatives of the underwriters.

Underwriter	Number of Shares
TD Securities (USA) LLC	11,250,000
Barclays Capital Inc.	8,750,000
BTIG, LLC	3,750,000
H.C. Wainwright & Co., LLC	750,000
The Benchmark Company, LLC	500,000
Total	25,000,000

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the option to purchase additional shares described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to additional shares of common stock at the public offering price, less the underwriting discounts and commissions. This option is exercisable for a period of 30 days. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of \$0.072 per share. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms. Sales of any shares of common stock may be made by affiliates of the underwriters.

The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share	Total	
		Without Option	With Option
Public offering price	\$2.00	\$50,000,000	\$57,500,000
Underwriting discounts and commissions	\$0.12	\$ 3,000,000	\$ 3,450,000
Proceeds, before expenses, to us	\$1.88	\$47,000,000	\$54,050,000

We estimate that the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$380,000 and are payable by us. We have agreed to reimburse the underwriters for their FINRA counsel fee in an amount not to exceed \$20,000. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Market Information. Our common stock is traded on Nasdaq under the symbol "HUMA."

Stabilization. In connection with this offering, the underwriters (and their affiliates) may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- 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.
- Over-allotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in the option to purchase additional shares. The underwriters may close out any short position by exercising their option to purchase additional shares and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the option to purchase additional shares. If the underwriters sell more shares than could be covered by exercise of the option to purchase additional shares and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on Nasdaq, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Lock-Up Agreements. Pursuant to certain lock-up agreements, we and our executive officers, directors and certain of our other stockholders, have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, lend or otherwise dispose of, or announce the intention to otherwise dispose of, or enter into, or announce the intention to enter into any swap, hedge or similar agreement or arrangement (including, without limitation, the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) that transfers, is designed to transfer or reasonably could be expected to transfer (whether by the stockholder or someone other than the stockholder) in whole or in part, directly or indirectly the economic consequence of ownership of, directly or indirectly, or make any demand or request or exercise any right with respect to the registration of, or file with the SEC a registration statement under the Securities Act

relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of TD Securities (USA) LLC and Barclays Capital Inc., for a period of 90 days after the date of the pricing of the offering.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The exceptions permit us, among other things and subject to restrictions, to: (a) issue common stock and options to purchase common stock, shares of common stock underlying options granted and other securities, each pursuant to our employee benefit plans in effect as of the date of the underwriting agreement and described in this prospectus supplement, (b) file any registration statement on Form S-8 relating to the common stock granted pursuant to or reserved for issuance under our employee benefit plans, (c) issue common stock pursuant to the conversion of securities or the exercise of options or warrants, which securities, options or warrants are currently outstanding and described in this prospectus supplement, (d) issue common stock or other securities to a third party in connection with a bona fide commercial relationship (including strategic partnerships, joint ventures, marketing or distribution arrangements, collaboration agreements or acquisition or license of any business products, technology or intellectual property) or any bona fide acquisition of assets of not less than a majority or controlling portion of the equity of another entity, provided that the aggregate number of shares of common stock that we may sell or issue or agree to sell or issue shall not exceed 5.0% of the total number of shares of common stock issued and outstanding immediately subsequent to the completion of the transactions contemplated by the underwriting agreement, and provided further that it shall be a condition to the sale, issuance or transfer of shares of any such securities that the transferee executes and delivers to the representatives a lock-up agreement, and provided further that such shares of common stock are issued as "restricted securities" (as defined in Rule 144 under the Securities Act) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the 90-day lock-up period, (e) adopt a new equity incentive plan or amend a current equity incentive plan, and file a registration statement on Form S-8 under the Securities Act to register the offer and sale of securities to be issued pursuant to such new or amended equity incentive plan, and issue securities pursuant to such new or amended equity incentive plan (including, without limitation, the issuance of shares of common stock upon the exercise of options or other securities issued pursuant to such new or amended equity incentive plan), and (f) file any registration statement on Form S-3, provided that no securities are issued pursuant to any such registration statement during the 90-day lock-up period. The exceptions permit parties to the lock-up agreements, among other things and subject to restrictions, to: (a) make certain gifts, make transfers to a trust, make transfers by will or intestate succession, make transfers pursuant to a domestic order, divorce settlement, divorce decree or separation agreement, and make transfers by operation of law pursuant to order of a court, (b) make transfers to a corporation, limited liability company or partnership wholly owned by the party and/or any member of the party's immediate family, provided that no public announcement or filing is made regarding such transfer during the 90-day lock-up period, (c) if the party is a corporation, partnership, limited liability company or other business entity, make transfers to any stockholder, partner, member or manager of, or owner of a similar equity interest in, the party, or to an affiliate of the party, or to an investment fund or other entity that controls or manages, is controlled by, or is under common control with the party, as the case may be, if, in any such case, such transfer is not for value, (d) if the party is a corporation, partnership, limited liability company or other business entity, make transfers in connection with the sale or transfer of all or substantially all of the party's capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the party's assets, or to another corporation, partnership, limited liability company or other business entity provided the transferee is an affiliate of the party and such transfer is not for value, (e) make transfers pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction involving a change of control of us, (f) enter into transactions relating to shares of common stock or other securities convertible into or exercisable or exchangeable for common stock acquired in this offering or in open market transactions after completion of this offering, provided that no public announcement or filing is made regarding such transaction during the 90-day lock-up period, (g) establish a 10b5-1 trading plan, provided that such plan does not permit the sale of any common stock during the 90-day lock-up period, and that no public announcement or filing is made or required during such period regarding such plan, except as required pursuant to the securities laws, (h) sell shares of common stock pursuant to a 10b5-1 trading plan that has been disclosed to the representatives prior

to the execution of the underwriting agreement, provided that to the extent a public announcement or filing under the Exchange Act is required, such announcement or filing will state that such sales have been executed under a 10b5-1 trading plan and (i) make transfers to us to satisfy tax withholding obligations pursuant to our equity incentive plans disclosed in this prospectus supplement.

TD Securities (USA) LLC and Barclays Capital Inc., in their sole discretion, may release our common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release our common stock and other securities from lock-up agreements, TD Securities (USA) LLC and Barclays Capital Inc. will consider, among other factors, the holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time of the request.

Selling Restrictions

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Switzerland. The common stock will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area.

In relation to each Member State of the European Economic Area (each, a "Member State"), no shares have been offered or will be offered pursuant to the offering to the public in that Member State, prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the EU Prospectus Regulation, except that shares may be offered to the public in that Member State at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 the EU Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors, as defined under Article 2 the EU Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- C. in any other circumstances falling within Article 1(4) of the EU Prospectus Regulation,

provided that no such offer of the shares shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the EU Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the EU Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to shares in any Member State means the communication in any form and by any means of sufficient information on the

terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “EU Prospectus Regulation” means Regulation (EU) 2017/1129.

United Kingdom.

This prospectus supplement is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors (as defined in the UK Prospectus Regulation) that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, referred to herein as the “Order,” and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated or caused to be communicated. Each such person is referred to herein as a “Relevant Person.”

This prospectus supplement and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a Relevant Person should not act or rely on this document or any of its contents.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the “FSMA”)) may only be communicated or caused to be communicated in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply. All applicable provisions of the FSMA must be complied with in respect of anything done by any person in relation to the shares in, from or otherwise involving the United Kingdom.

No shares have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- C. in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of the shares shall require us or any underwriter to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018, as amended.

Hong Kong. The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the “SFO”) of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong) (the “CO”), or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made thereunder.

Singapore. Each underwriter has acknowledged that this prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus supplement or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

A. to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA;

B. to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or

C. otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

A. a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

B. a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries’ rights and interest (however described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification — In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of shares, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the shares are “prescribed capital markets products” (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Israel. In the State of Israel this prospectus supplement shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728 – 1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728-1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the “Addressed Investors”); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728 – 1968, subject to certain conditions (the “Qualified Investors”). The Qualified

Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728 – 1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728 – 1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728 – 1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728 – 1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728 – 1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728 – 1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728 – 1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their respective affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

Electronic Offer, Sale and Distribution of Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus supplement or the registration statement of which this prospectus supplement forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees. The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. In the ordinary course of their various business activities, the underwriters and certain of their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer or its affiliates. The underwriters and certain of their affiliates may also communicate independent investment recommendations, market color or trading ideas 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.

LEGAL MATTERS

The validity of the securities by this prospectus will be passed upon for us by Covington & Burling LLP, Washington, D.C. Paul Hastings LLP, New York, New York is counsel for the underwriters in connection with this offering.

EXPERTS

The financial statements incorporated in this prospectus by reference to the [Annual Report on Form 10-K for the year ended December 31, 2023](#) have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, 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 <http://www.sec.gov>. We maintain a website at www.humacyte.com. The information contained in, or that can be accessed through, our website is not incorporated by reference herein and is not part of this prospectus supplement or the accompanying prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus supplement and the accompanying prospectus much of the information in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement and the accompanying prospectus and should be read with the same care. When we update the information contained in documents that have been incorporated by reference by making future filings with the SEC, the information incorporated by reference into this prospectus is considered to be automatically updated and superseded. In other words, in all cases, if you are considering whether to rely on information contained in this prospectus supplement and the accompanying prospectus or information incorporated by reference herein and therein, you should rely on the information contained in the document that was filed later. We incorporate by reference (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein) the documents listed below (File No. 001-39532 unless otherwise stated), which are considered to be a part of this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2023, filed with the SEC on March 28, 2024 (including the portions of our [Definitive Proxy Statement on Schedule 14A](#), filed with the SEC on April 29, 2024, incorporated by reference therein);
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on [May 13, 2024](#), the quarter ended June 30, 2024, filed with the SEC on [August 13, 2024](#), and the quarter ended September 30, 2024, filed with the SEC on [November 8, 2024](#);
- Our Current Reports on Form 8-K filed with the SEC on [February 9, 2024](#), [February 29, 2024](#), [March 4, 2024](#), [June 13, 2024](#), [July 31, 2024](#), [August 13, 2024](#), [September 25, 2024](#), [October 7, 2024](#), [October 28, 2024](#), [November 14, 2024](#), [December 20, 2024](#) and [March 25, 2025](#); and
- the description of our common stock contained in [Exhibit 4.6](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024.

All reports and other documents we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until our offering is completed will also be incorporated by reference into this

prospectus supplement and deemed to be part hereof (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein). The information contained in any such filing will be deemed to be a part of this prospectus supplement commencing on the date on which the document is filed.

Any documents incorporated by reference into this prospectus supplement are available without charge to you, upon written request by contacting our Investor Relations department at Investor Relations, Humacyte, Inc., 2525 East North Carolina Highway 54, Durham, North Carolina 27713.

PROSPECTUS

\$300,000,000



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

From time to time, we may offer and sell up to \$300,000,000 in the aggregate of the securities identified above, either individually or in combination, at prices and on terms described in one or more supplements to this prospectus. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable anti-dilution provisions.

This prospectus describes the general terms of these securities and the general manner in which they may be offered. Each time we offer any securities pursuant to this prospectus, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered and the specific manner in which they may be offered. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should read this prospectus, the information incorporated by reference in this prospectus, the accompanying prospectus supplement, including any information incorporated by reference therein, and any applicable free writing prospectus carefully before you invest in the securities described in the applicable prospectus supplement.

Our common stock is listed on the Nasdaq Global Select Market ("Nasdaq") under the symbol "HUMA." On August 31, 2022, the last reported sales price of our common stock was \$3.65 per share. The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on the Nasdaq Global Select Market or other securities exchange of the securities covered by the prospectus supplement.

We may offer and sell these securities to or through one or more underwriters, dealers and agents, directly to purchasers or through a combination of these methods, on a continuous or delayed basis from time to time. See "*Plan of Distribution*" in this prospectus and in the applicable prospectus supplement. The names of any underwriters, dealers or agents involved in the distribution of our securities, their compensation and any option they hold to acquire additional securities will be described in the applicable prospectus supplement. Net proceeds from the sale of securities will be set forth in the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. Before investing in our securities, you should carefully consider the risks and uncertainties described under the caption "*Risk Factors*" beginning on page 8 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is September 9, 2022.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (“SEC”), using a “shelf” registration process under the Securities Act of 1933, as amended (the “Securities Act”). Under this shelf registration statement, we may offer and sell from time to time, separately or together, any combination of our common stock, preferred stock, warrants, subscription rights, and units in one or more offerings at an aggregate offering price of up to \$300,000,000. The preferred stock, debt securities, warrants, subscription rights and units may be convertible into, or exercisable or exchangeable for, our common or preferred stock or other securities issued by us.

This prospectus provides you with a general description of the securities we may offer. Each time we offer and sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading “*Where You Can Find More Information.*” We may also prepare free writing prospectuses that describe particular securities. Any free writing prospectus should also be read in connection with this prospectus and any prospectus supplement referred to therein. For purposes of this prospectus, any reference to an applicable prospectus supplement may also refer to a free writing prospectus, unless the context otherwise requires.

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to “we,” “our,” “us,” “our company” and “the Company” refer to Humacyte, Inc. (formerly known as Alpha Healthcare Acquisition Corp.) and its consolidated subsidiary, Humacyte Global, Inc.

This prospectus describes the terms of this offering also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus) the statement in the document having the later date modifies or supersedes the earlier statement. The information contained in this prospectus or any free writing prospectus, or incorporated by reference herein or therein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our shares of common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

The registration statement of which this prospectus forms a part, including the exhibits to the registration statement, contains additional information about us and the securities offered under this prospectus. The registration statement can be obtained from the SEC’s website, www.sec.gov. Copies of information filed by us with the SEC are also available on our website at www.humacyte.com. The reference to our website is not intended to be an active link and the information on, or that can be accessed through, our website is not, and you must not consider the information to be, a part of this prospectus or any other filings we make with the SEC.

We have not authorized anyone to provide you with information in addition to or different from that contained in this prospectus or any applicable prospectus supplement or free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any information that others may provide. You should not assume that the information in this prospectus, any applicable prospectus supplement or any free writing prospectus that we have prepared is accurate as of any date other than the date of those documents,

and that any information in documents that we have incorporated by reference is accurate only as of the date of such document, regardless of the time of delivery of this prospectus or any prospectus supplement or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

The distribution of this prospectus and any applicable prospectus supplement and the offering of the securities in certain jurisdictions may be restricted by law. Persons who obtain this prospectus and any applicable prospectus supplement should inform themselves about, and observe, any such restrictions. This prospectus and any applicable prospectus supplement do not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not permitted or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain “forward-looking statements” within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. These forward-looking statements reflect our current views with respect to, among other things, future events and our financial performance. Any statements about our management’s expectations, beliefs, plans, predictions, forecasts, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as “anticipate,” “believes,” “can,” “could,” “may,” “predicts,” “potential,” “should,” “will,” “estimate,” “plans,” “projects,” “continuing,” “ongoing,” “expects,” “intends” and similar words or phrases. All forward-looking statements, expressed or implied, included herewith are expressly qualified in their entirety by the cautionary statements contained or referred to herein. The inclusion of forward-looking information in this prospectus and the documents incorporated by reference herein should not be regarded as a representation by us or any other person that the future plans, estimates or expectations contemplated by us will be achieved. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. Factors that may affect our results are disclosed in “Risk Factors” beginning on page 5 of this prospectus, and in the documents incorporated by reference into this prospectus and included or incorporated by reference in this prospectus. Some of the risks and uncertainties that may cause our actual results, performance or achievements to differ materially from those expressed include, but are not limited to, the following:

- our plans and ability to execute product development, process development and preclinical development efforts successfully and on our anticipated timelines;
- our plans and ability to obtain marketing approval from the U.S. Food and Drug Administration (“FDA”) and other regulatory authorities, including the European Medicines Agency, for our bioengineered human acellular vessels (“HAVs”) and other product candidates;
- our ability to design, initiate and successfully complete clinical trials and other studies for our product candidates and our plans and expectations regarding our ongoing or planned clinical trials, including for our ongoing V005 Phase II/III clinical trial and V007 Phase III clinical trial;
- the outcome of our ongoing discussions with the FDA concerning the design of our ongoing V005 Phase II/III clinical trial, including determination of trial size;
- our anticipated growth rate and market opportunities;
- the potential liquidity and trading of our securities;
- our ability to raise additional capital in the future;
- our ability to use our proprietary scientific technology platform to build a pipeline of additional product candidates;
- the characteristics and performance of our bioengineered human, acellular vessels (“HAVs”);
- our plans and ability to commercialize our HAVs and other product candidates, if approved by regulatory authorities;
- the expected size of the target populations for our product candidates;
- the anticipated benefits of our HAVs relative to existing alternatives;
- our assessment of the competitive landscape;
- the degree of market acceptance of HAVs, if approved, and the availability of third-party coverage and reimbursement;
- our ability to manufacture HAVs and other product candidates in sufficient quantities to satisfy our clinical trial and commercial needs;
- our expectations regarding our strategic partnership with Fresenius Medical Care Holdings, Inc. to sell, market and distribute our 6 millimeter HAV for certain specified indications and in specified markets;

- the performance of other third parties on which we rely, including our third-party manufacturers, our licensors, our suppliers and the organizations conducting our clinical trials;
- our ability to obtain and maintain intellectual property protection for our product candidates as well as our ability to operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of others;
- our ability to maintain the confidentiality of our trade secrets, particularly with respect to our manufacturing process;
- our compliance with applicable laws and regulatory requirements, including FDA regulations, healthcare laws and regulations, and anti-corruption laws;
- our ability to attract, retain and motivate qualified personnel and to manage our growth effectively;
- our future financial performance and capital requirements;
- our ability to implement and maintain effective internal controls; and
- the impact of the COVID-19 pandemic on our business, including our manufacturing efforts, and our preclinical studies and clinical trials.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this prospectus.

These forward-looking statements are only predictions based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including those described in “*Risk Factors*” and elsewhere in this prospectus. Moreover, we operate in a competitive industry, and new risks emerge from time to time. It is not possible for the management of Humacyte to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this prospectus.

The forward-looking statements included in this prospectus are made only as of the date hereof. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We do not undertake any obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in expectations, except as required by law.

You should read this prospectus, the documents that have been filed as exhibits to the registration statement of which this prospectus forms a part, and any accompanying prospectus supplement with the understanding that the actual future results, levels of activity, performance, events and circumstances of Humacyte may be materially different from what is expected.

MARKET, INDUSTRY AND OTHER DATA

Certain information contained in this prospectus, and any applicable prospectus supplement, and the information incorporated by reference herein and therein, relates to or is based on studies, publications, surveys and other data obtained from third-party sources and Humacyte's own internal estimates and research. While our management is responsible for the accuracy of such statement and we believe these third-party sources to be reliable as of the date of this prospectus, we have not independently verified the market and industry data contained in this prospectus or the underlying assumptions relied on therein. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and our securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You can read our SEC filings, including the registration statement, over the internet at the SEC's website at www.sec.gov.

We are subject to the information reporting requirements of the Exchange Act, and we file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information are available for review at the SEC's website at www.sec.gov. We also maintain a website at www.humacyte.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Humacyte's website and the information contained on, or that can be accessed through, such website are not deemed to be incorporated by reference in, and are not considered part of, this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus and should be read with the same care. When we update the information contained in documents that have been incorporated by reference by making future filings with the SEC, the information incorporated by reference into this prospectus is considered to be automatically updated and superseded. In other words, in all cases, if you are considering whether to rely on information contained in this prospectus or information incorporated by reference into this prospectus, you should rely on the information contained in the document that was filed later. We incorporate by reference (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein) the documents listed below (File No. 001-39532 unless otherwise stated), which are considered to be a part of this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 29, 2022 (including the portions of our [Definitive Proxy Statement on Schedule 14A](#), filed with the SEC on April 29, 2022, incorporated by reference therein);
- our Quarterly Reports on Form 10-Q for the quarter ended [March 31, 2022](#), filed May 13, 2022 and for the quarter ended [June 30, 2022](#), filed August 12, 2022;
- Our Current Report on [Form 8-K](#) (other than any items, exhibits or portions thereof furnished to, rather than filed with, the SEC) filed with the SEC on June 13, 2022; and
- the description of our common stock contained in [Exhibit 4.6](#) of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 29, 2022.

All reports and other documents we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until our offering is completed, including all such reports and other documents

filed with the SEC after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement, will also be incorporated by reference into this prospectus and deemed to be part hereof (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein). The information contained in any such filing will be deemed to be a part of this prospectus commencing on the date on which the document is filed.

Any documents incorporated by reference into this prospectus are available without charge to you, upon written request by contacting our Investor Relations department at Investor Relations, Humacyte, Inc., 2525 East North Carolina Highway 54, Durham, North Carolina 27713.

THE COMPANY

Humacyte is pioneering the development and manufacture of off-the-shelf, universally implantable, bioengineered human tissues with the goal of improving the lives of patients and transforming the practice of medicine. We believe our technology has the potential to overcome limitations in existing standards of care and address the lack of significant innovation in products that support tissue repair, reconstruction and replacement. We are leveraging our novel, scalable technology platform to develop proprietary, bioengineered, acellular human tissues for use in the treatment of diseases and conditions across a range of anatomic locations in multiple therapeutic areas. Our lead product candidate is being developed to address critical gaps in existing treatment options for acute vascular injuries in the extremities due to trauma in patient populations that cannot be adequately treated with either autologous vein or synthetic graft.

On August 26, 2021 (the “Closing Date”), Humacyte, Inc. (“Legacy Humacyte”) and Alpha Healthcare Acquisition Corp. (“AHAC”) consummated a business combination pursuant to that certain Business Combination Agreement, dated as of February 17, 2021 (the “Business Combination Agreement”), by and among Legacy Humacyte, AHAC and Hunter Merger Sub (“Merger Sub”), a Delaware corporation and wholly owned subsidiary of AHAC. As contemplated by the Business Combination Agreement, Merger Sub merged with and into Legacy Humacyte, with Legacy Humacyte continuing as the surviving corporation and as a wholly owned subsidiary of AHAC (the “Business Combination”). On the Closing Date, AHAC changed its name to Humacyte, Inc. and Legacy Humacyte changed its name to Humacyte Global, Inc. AHAC was incorporated in Delaware on July 1, 2020.

Our common stock is traded on Nasdaq under the symbol “HUMA.” The mailing address of our principal executive office is 2525 East North Carolina Highway 54, Durham, North Carolina 27713, and our telephone number is (919) 313-9633. Our website address is <http://www.humacyte.com>. The information contained in, or that can be accessed through, our website is not part of this prospectus. We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC.

Additional information about us and our subsidiaries is included in documents incorporated by reference in this prospectus. See “*Where you Can Find More Information*” and “*Incorporation by Reference*.”

RISK FACTORS

Investing in securities issued by us involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Before deciding whether to invest in our securities, you should consider carefully the risks described under the heading “Risk Factors” in the applicable prospectus supplement and in any of our filings with the SEC that are incorporated by reference therein.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of our securities offered by this prospectus. Unless we indicate otherwise in the applicable prospectus supplement, we anticipate that any net proceeds will be used for working capital and general corporate purposes, including expenses related to funding research and development expenses for our clinical trials and pre-clinical studies, manufacturing and other costs associated with advancing our product candidates. We will set forth in the applicable prospectus supplement our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement. Pending these uses, we intend to invest the net proceeds in short-term U.S. treasury money market mutual funds.

DESCRIPTION OF COMMON STOCK

We may issue, separately or together with, or upon conversion, exercise or exchange of other securities, shares of our common stock as set forth in the applicable prospectus supplement. The following section describes the material features and rights of our common stock, \$0.0001 par value per share, and does not purport to be complete. It is subject to, and qualified in its entirety by reference to, our second amended and restated certificate of incorporation (the "Charter") and our By Laws (the "Bylaws") and applicable provisions of the Delaware General Corporation Law ("DGCL"). Each of our Charter and Bylaws is incorporated by reference as an exhibit to the registration statement of which this prospectus forms a part.

General

As of the date of this prospectus, our authorized capital stock consists of 270,000,000 shares, comprised of 250,000,000 shares of common stock, \$0.0001 par value per share, and 20,000,000 shares of preferred stock, \$0.0001 par value per share. As of August 22, 2022, there were 103,006,803 shares of our common stock outstanding and no shares of preferred stock outstanding. Our common stock is traded on Nasdaq under the symbol "HUMA."

Common Stock

The Charter provides the following with respect to the rights, powers, preferences and privileges of our common stock.

Voting Rights

Holders of record of our common stock are entitled to one vote for each share held on all matters to be voted upon by stockholders. Unless specified in our Charter or Bylaws, or as required by applicable provisions of the DGCL or applicable stock exchange rules, the affirmative vote of a majority of our shares of common stock that are voted is required to approve any such matter voted on by our stockholders.

Our board of directors is divided into three classes, each of which will generally serve for a term of three years with only one class of directors being elected each year. There is no cumulative voting with respect to the election of directors.

Dividend Rights

Subject to applicable law and the rights, if any, of the holders of any series of our preferred stock then-outstanding, the holders of our common stock are entitled to receive ratable dividends when, as and if declared by our board of directors out of funds legally available therefor and will share equally on a per share basis in such dividends and distributions.

Rights Upon Liquidation

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, after payment or provision for payment of the debts and other liabilities of Humacyte, the holders of shares of common stock are entitled to receive all remaining assets of Humacyte available for distribution to its stockholders, ratably in proportion to the number of shares held by them, subject to applicable law and the rights, if any, of the holders of any outstanding series of preferred stock.

Other Rights

Our stockholders have no conversion, preemptive or other subscription rights. There are no sinking fund or redemption provisions applicable to the common stock.

Transfer Agent and Registrar

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

DESCRIPTION OF PREFERRED STOCK

Pursuant to the Charter, our board of directors has the authority, without stockholder approval, subject to limitations prescribed by law, to provide for the issuance of up to 20,000,000 shares of preferred stock in one or more series, and by filing a certificate pursuant to the applicable law of the State of Delaware, to establish from time to time the number of shares to be included in each such series, and to fix the voting rights, if any, designations, powers, preferences and relative, participating, optional, special and other rights of the shares of each series and any qualifications, limitations or restrictions thereof.

We will fix the voting rights, designations, preferences and rights of the preferred stock of each series, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to such series. We will file an exhibit to the registration statement of which this prospectus forms a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

- the title and stated value;
- the number of shares offered;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate(s), period(s) and/or payment date(s) or method(s) of calculation for dividends;
- whether dividends are cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of such deferral period;
- the procedures for auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provision for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- the terms and conditions, if applicable, upon which the preferred stock will be convertible into common stock, including the conversion price (or manner of calculation) and conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
- voting rights, if any, of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion go any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs;
- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the class or series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of the preferred stock.

Our board of directors could authorize the issuance of shares of preferred stock with terms and conditions that could have the effect of discouraging a takeover or other transaction that might involve a

premium price for holders of the shares or which holders might believe to be in their best interests. The issuance of preferred stock could adversely affect the voting power, conversion or other rights of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation.

The laws of the State of Delaware provide that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes to the rights of holders of such preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

The transfer agent and registrar for any series of preferred stock will be set forth in the applicable prospectus supplement.

Certain Anti-Takeover Provisions of Delaware Law and our Charter and Bylaws

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. This statute prevents certain Delaware corporations, under certain circumstances and for three years following the date that the stockholder became an interested stockholder, as defined below, from engaging in a “business combination” with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an “interested stockholder”);
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of our assets. However, the above provisions of Section 203 do not apply if:

- our board of directors approves the transaction that made the stockholder an interested stockholder, prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the transaction is approved by our board of directors and authorized at a meeting of our stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Classified Board of Directors

Our board of directors is divided into three classes, Class I, Class II and Class III, with members of each class serving staggered three-year terms. Our Charter provides that the authorized number of directors may be changed only by resolution of the board of directors. As a result, in most circumstances, a person can gain control of our board only by successfully engaging in a proxy contest at two or more annual meetings. Subject to the terms of any preferred stock, any or all of the directors may be removed from office at any time, but only for cause and only by the affirmative vote of holders of 66 2/3% of the voting power of all then outstanding shares of our capital stock entitled to vote generally in the election of directors, voting together as a single class. Any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

Authorized but Unissued Shares

Our authorized but unissued common stock and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but

unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Stockholder Action and Special Meetings

Our Charter provides that any action required or permitted to be taken by the stockholders of the Company must be effected by a duly called annual or special meeting of such stockholders and may not be effected by written consent of the stockholders. Our Charter further provides that meetings of stockholders of the Company may be called only by the Chairman of the board of directors, the Chief Executive Officer of the Company, or the board of directors pursuant to a resolution adopted by a majority of thereof, and that the ability of the stockholders of the Company to call a special meeting is specifically denied.

Exclusive Forum Selection

Our Charter requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against directors, officers and employees for breach of fiduciary duty, arising pursuant to any provision of the DGCL, Charter or Bylaws, or governed by the internal affairs doctrine, may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder's counsel except any action (i) as to which the Court of Chancery in the State of Delaware determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within 10 days following such determination), (ii) which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery or (iii) for which the Court of Chancery does not have subject matter jurisdiction. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in the Charter.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. We cannot be certain that a court will decide that this provision is either applicable or enforceable, and if a court were to find the choice of forum provision contained in our Charter to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions.

Our Charter provides that the exclusive forum provision is applicable to the fullest extent permitted by applicable law. Notwithstanding the foregoing, the choice of forum provision will not apply to claims brought to enforce any liability or duty created by the Securities Act, the Exchange Act, or any other claim for which the federal courts have exclusive jurisdiction. Unless the Company consents in writing to the selection of an alternative forum, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the exclusive forum provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

DESCRIPTION OF DEBT SECURITIES

We may issue, separately or together with, or upon conversion, exercise or exchange of other securities, debt securities, including debentures, notes, bonds and other evidences of indebtedness as set forth in the applicable prospectus supplement. The debt securities may be either secured or unsecured and will either be senior debt securities or subordinated debt securities. Senior debt securities will be issued under a senior indenture between us and a trustee to be specified in an accompanying prospectus supplement. Subordinated debt securities will be issued under a subordinated indenture between us and a trustee to be specified in an accompanying prospectus supplement. Together, the senior indenture and the subordinated indenture are called indentures in this description. This prospectus, together with the applicable prospectus supplement, will describe the terms of a particular series of debt securities that we may offer from time to time.

The following summary of the material provisions of the indentures and the debt securities does not purport to be complete and is subject to, and is qualified in its entirety by reference to, the provisions of the applicable indenture and certificates evidencing the applicable debt securities. Therefore, you should carefully consider the applicable indenture and the certificate evidencing the applicable debt security that is filed as an exhibit to the registration statement that includes this prospectus. Other specific terms of the applicable indenture and debt securities will be described in the applicable prospectus supplement. If any particular terms of the indenture or debt securities described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superseded by that prospectus supplement. In this description of the debt securities, the words "Humacyte," "we," "us" or "our" refer only to Humacyte, Inc. and not to our subsidiary, unless we otherwise expressly state or the context otherwise requires.

General

Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series.

We are not limited as to the amount of debt securities that we may issue under the indentures. Unless otherwise provided in a prospectus supplement, a series of debt securities may be reopened to issue additional debt securities of such series.

The prospectus supplement relating to a particular series of debt securities will set forth the material terms of the debt securities being offered, including:

- the title of the debt securities and whether they are senior debt securities or subordinated debt securities;
- the offering price;
- the person who will be entitled to receive interest, if other than the record holder on the record date;
- the maturity date or dates;
- the interest rate or rates, if any, which may be fixed or variable, at which the debt securities will bear interest, or the method of determining such rate or rates;
- the date from which interest will accrue, the interest payment dates and the regular record dates, or the method for calculating the dates and rates;
- the place or places where payments of principal and interest may be made;
- any mandatory or optional redemption provisions or sinking fund provisions and any applicable redemption or purchase prices associated with these provisions;
- if issued other than in denominations of \$1,000 or any multiple of \$1,000, the denominations in which the debt securities shall be issuable;
- if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula;

- if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable, whether we or a holder may elect payment to be made in a different currency and the designation of the original currency determination agent;
- the portion of the principal amount that will be payable upon acceleration of maturity, if other than the entire principal amount;
- if the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount or method for determining the amount which will be deemed to be the principal amount;
- if applicable, whether the debt securities shall be subject to the defeasance provisions described below under “Satisfaction and Discharge; Defeasance” or such other defeasance provisions specified in the applicable prospectus supplement for the debt securities;
- any conversion or exchange provisions;
- whether the debt securities will be issuable in the form of a global security;
- any subordination provisions applicable to the subordinated debt securities if different from those described below under “Subordinated Debt Securities”;
- any paying agents, authenticating agents, security registrars or other agents for the debt securities, if other than the trustee;
- any provisions relating to any security provided for the debt securities, including any provisions regarding the circumstances under which collateral may be released or substituted;
- any deletions of, or changes or additions to, the events of default, acceleration provisions or covenants;
- any provisions relating to guaranties for the securities and any circumstances under which there may be additional obligors; and
- any other specific terms of such debt securities.

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

Unless otherwise specified in the prospectus supplement, the debt securities will be registered debt securities. Debt securities may be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate which at the time of issuance is below market rates. The U.S. federal income tax considerations applicable to debt securities sold at a discount will be described in the applicable prospectus supplement.

Exchange and Transfer

Debt securities may be transferred or exchanged at the office of the security registrar or at the office of any transfer agent designated by us.

We will not impose a service charge for any transfer or exchange, but we may require holders to pay any tax or other governmental charges associated with any transfer or exchange.

In the event of any partial redemption of debt securities of any series, we will not be required to:

- issue, register the transfer of or exchange any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

Under any indenture, we will initially appoint the trustee as the security registrar. Any transfer agent, in addition to the security registrar initially designated by us, will be named in the prospectus supplement. We may designate additional transfer agents or change transfer agents or change the office of the transfer agent. However, we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Conversion or Exchange

If any debt securities being offered are convertible into or exchangeable for our common stock or other securities, the relevant prospectus supplement will set forth the terms of conversion or exchange. Those terms will include whether conversion or exchange is mandatory, at the option of the holder or at our option, and the number of shares of common stock or other securities, or the method of determining the number of shares of common stock or other securities, to be received by the holder upon conversion or exchange. These provisions may allow or require the number of shares of our common stock or other securities to be received by the holders of such series of debt securities to be adjusted.

Global Securities

The debt securities of any series may be represented, in whole or in part, by one or more global securities. Each global security will:

- be registered in the name of a depositary, or its nominee, that we will identify in a prospectus supplement;
- be deposited with the depositary or nominee or custodian; and
- bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depositary or any nominee unless:

- the depositary has notified us that it is unwilling or unable to continue as depositary or has ceased to be qualified to act as depositary;
- an event of default has occurred and is continuing with respect to the debt securities of the applicable series; or
- any other circumstance described in a prospectus supplement has occurred permitting or requiring the issuance of any such security.

As long as the depositary, or its nominee, is the registered owner of a global security, the depositary or nominee will be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indentures. Except in the above limited circumstances, owners of beneficial interests in a global security will not be:

- entitled to have the debt securities registered in their names;
- entitled to physical delivery of certificated debt securities; or
- considered to be holders of those debt securities under the indenture.

Payments on a global security will be made to the depositary or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depositary or its nominee are referred to as “participants.” Ownership of beneficial interests in a global security will be limited to participants and to persons that may hold beneficial interests through participants. The depositary will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security will be shown on and effected through records maintained by the depository, with respect to participants' interests, or any participant, with respect to interests of persons held by participants on their behalf.

Payments, transfers and exchanges relating to beneficial interests in a global security will be subject to policies and procedures of the depository. The depository policies and procedures may change from time to time. Neither any trustee nor we will have any responsibility or liability for the depository's or any participant's records with respect to beneficial interests in a global security.

Payment and Paying Agents

Unless otherwise indicated in a prospectus supplement, the provisions described in this paragraph will apply to the debt securities. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the regular record date. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder. The trustee will be designated as our initial paying agent.

We may also name any other paying agents in a prospectus supplement. We may designate additional paying agents, change paying agents or change the office of any paying agent. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security that remain unclaimed for a period ending the earlier of:

- 10 business days prior to the date the money would be turned over to the applicable state; or
- at the end of two years after such payment was due, will be repaid to us thereafter. The holder may look only to us for such payment.

No Protection in the Event of a Change of Control

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any provisions that 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.

Covenants

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any financial or restrictive covenants.

Consolidation, Merger and Sale of Assets

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to, any entity, unless:

- the successor entity, if any, is a corporation, limited liability company, partnership, trust or other business entity existing under the laws of the United States, any State within the United States or the District of Columbia;
- the successor entity assumes our obligations on the debt securities and under the applicable indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- certain other conditions specified in the indenture are met.

Events of Default

Unless we indicate otherwise in a prospectus supplement with respect to a particular series of debt securities, the following will be events of default for any series of debt securities under the indentures:

- (1) we fail to pay any interest on any debt security of that series when it becomes due and we subsequently fail to pay such interest for 30 days;
- (2) we fail to pay principal of or any premium on any debt security of that series when due;
- (3) we fail to deposit any sinking fund payment when due;
- (4) we fail to perform any other covenant in the applicable indenture and such failure continues for 90 days after we are given the notice required in the indentures; and
- (5) certain events including our bankruptcy, insolvency or reorganization.

Additional or different events of default applicable to a series of debt securities may be described in a prospectus supplement. An event of default of one series of debt securities is not necessarily an event of default for any other series of debt securities.

The trustee may withhold notice to the holders of any default, except defaults in the payment of principal, premium, if any, interest, any sinking fund installment on, or with respect to any conversion right of, the debt securities of such series. However, the trustee must consider it to be in the interest of the holders of the debt securities of such series to withhold this notice.

Unless we indicate otherwise in a prospectus supplement, if an event of default, other than an event of default described in clause (5) above, shall occur and be continuing with respect to any series of debt securities, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding securities of that series may declare the principal amount and premium, if any, of the debt securities of that series, or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement, in each case together with accrued and unpaid interest, if any, thereon, to be due and payable immediately.

If an event of default described in clause (5) above shall occur, the principal amount and premium, if any, of all the debt securities of that series, or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement, in each case together with accrued and unpaid interest, if any, thereon, will automatically become immediately due and payable without any declaration or other action on the part of the trustee or any holder. Any payment by us on the subordinated debt securities following any such acceleration will be subject to the subordination provisions described below under "Subordinated Debt Securities."

After acceleration, the holders of a majority in aggregate principal amount of the outstanding securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, or other specified amounts or interest, have been cured or waived.

Other than the duty to act with the required care during an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders shall have offered to the trustee reasonable indemnity. Generally, the holders of a majority in aggregate 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.

A holder of debt securities of any series will not have any right to institute any proceeding under the indentures, or for the appointment of a receiver or a trustee, or for any other remedy under the indentures, unless:

- (1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series;

- (2) the holders of at least 25%, with respect to senior debt securities, and a majority, with respect to subordinated debt securities, in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding; and
- (3) the trustee has failed to institute the proceeding and has not received direction inconsistent with the original request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series within 60 days after the original request.

Holders may, however, sue to enforce the payment of principal, premium or interest on any debt security on or after the due date or to enforce the right, if any, to convert any debt security (if the debt security is convertible) without following the procedures listed in clauses (1) through (3) above.

We will furnish the trustee an annual statement by our officers as to whether or not we are in default in the performance of the conditions and covenants under the indenture and, if so, specifying all known defaults.

Modification and Waiver

Unless we indicate otherwise in a prospectus supplement, we and the applicable trustee may make modifications and amendments to an indenture with the consent of the holders of a majority in aggregate principal amount of the outstanding securities of each series affected by the modification or amendment.

We may also make modifications and amendments to the indentures for the benefit of holders without their consent, for certain purposes including, but not limited to:

- providing for our successor to assume the covenants under the indenture;
- adding covenants or events of default;
- making certain changes to facilitate the issuance of the securities;
- securing the securities, including provisions relating to the release or substitution of collateral;
- providing for guaranties of, or additional obligors on, the securities;
- providing for a successor trustee or additional trustees;
- curing any ambiguities or inconsistencies;
- permitting or facilitating the defeasance and discharge of the securities; and
- other changes specified in the indenture.

However, neither we nor the trustee may make any modification or amendment without the consent of the holder of each outstanding security of that series affected by the modification or amendment if such modification or amendment would:

- change the stated maturity of any debt security;
- reduce the principal, premium, if any, or interest on any debt security or any amount payable upon redemption or repurchase, whether at our option or the option of any holder, or reduce the amount of any sinking fund payments;
- reduce the principal of an original issue discount security or any other debt security payable on acceleration of maturity;
- change the place of payment or the currency in which any debt security is payable;
- impair the right to enforce any payment after the stated maturity or redemption date;
- if subordinated debt securities, modify the subordination provisions in a materially adverse manner to the holders;
- adversely affect the right to convert any debt security if the debt security is a convertible debt security; or
- change the provisions in the indenture that relate to modifying or amending the indenture.

Satisfaction and Discharge; Defeasance

We may be discharged from our obligations on the debt securities, subject to limited exceptions, of any series that have matured or will mature or be redeemed within one year if we deposit enough money with the trustee to pay all of the principal, interest and any premium due to the stated maturity date or redemption date of the debt securities.

Each indenture contains a provision that permits us to elect either or both of the following:

- (1) We may elect to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding. If we make this election, the holders of the debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on debt securities or the registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.
- (2) We may elect to be released from our obligations under some or all of any financial or restrictive covenants applicable to the series of debt securities to which the election relates and from the consequences of an event of default resulting from a breach of those covenants.

To make either of the above elections, we must irrevocably deposit in trust with the trustee enough money to pay in full the principal, interest and premium on the debt securities. This amount may be made in cash and/or U.S. government obligations or, in the case of debt securities denominated in a currency other than U.S. dollars, cash in the currency in which such series of securities is denominated and/or foreign government obligations. As a condition to either of the above elections, for debt securities denominated in U.S. dollars we must deliver to the trustee an opinion of counsel that the holders of the debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the action.

“Foreign government obligations” means, with respect to debt securities of any series that are denominated in a currency other than United States dollars:

- direct obligations of the government that issued or caused to be issued the currency in which such securities are denominated and for the payment of which obligations its full faith and credit is pledged, or, with respect to debt securities of any series which are denominated in euros, direct obligations of certain members of the European Union for the payment of which obligations the full faith and credit of such members is pledged, which in each case are not callable or redeemable at the option of the issuer thereof;
- obligations of a person controlled or supervised by or acting as an agency or instrumentality of a government described in the bullet above, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which are not callable or redeemable at the option of the issuer thereof; or
- any depository receipt issued by a bank as custodian with respect to any obligation specified in the first two bullet points and held by such bank for the account of the holder of such deposit any receipt, or with respect to any such obligation which is so specified and held.

Notices

Notices to holders will be given by mail to the addresses of the holders in the security register.

Governing Law

The indentures and the debt securities will be governed by, and construed under, the laws of the State of New York.

No Personal Liability of Directors, Officers, Employees and Shareholders

No incorporator, shareholder, employee, agent, officer, director or subsidiary of ours will have any liability for any obligations of ours, or because of the creation of any indebtedness under the debt securities,

the indentures or supplemental indentures. The indentures provide that all such liability is expressly waived and released as a condition of, and as a consideration for, the execution of such indentures and the issuance of the debt securities.

Regarding the Trustee

The indentures limit the right of the trustee, should it become our creditor, to obtain payment of claims or secure its claims.

The trustee is permitted to engage in certain other transactions with us. However, if the trustee acquires any conflicting interest, and there is a default under the debt securities of any series for which it is trustee, the trustee must eliminate the conflict or resign.

The accompanying prospectus supplement will specify the trustee for the particular series of debt securities to be issued under the indentures.

Subordinated Debt Securities

The following provisions will be applicable with respect to each series of subordinated debt securities, unless otherwise stated in the prospectus supplement relating to that series of subordinated debt securities.

The indebtedness evidenced by the subordinated debt securities of any series is subordinated, to the extent provided in the subordinated indenture and the applicable prospectus supplement, to the prior payment in full, of all senior debt, including any senior debt securities, in cash or other payment satisfactory to the holders of senior debt.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, whether voluntary or involuntary, marshalling of assets, assignment for the benefit of creditors, or in bankruptcy, insolvency, receivership or other similar proceedings, payments on the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt.

In the event of any acceleration of the subordinated debt securities of any series because of an event of default with respect to the subordinated debt securities of that series, holders of any senior debt would be entitled to payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt before the holders of subordinated debt securities are entitled to receive any payment or distribution.

In addition, the subordinated debt securities will be structurally subordinated to all indebtedness and other liabilities of our subsidiaries, including trade payables and lease obligations. This occurs because our right to receive any assets of our subsidiaries upon their liquidation or reorganization, and your right to participate in those assets, will be effectively subordinated to the claims of that subsidiary's creditors, including trade creditors, except to the extent that we are recognized as a creditor of such subsidiary. If we are recognized as a creditor of that subsidiary, our claims would still be subordinate to any security interest in the assets of the subsidiary and any indebtedness of the subsidiary senior to us.

We are required to promptly notify holders of senior debt or their representatives under the subordinated indenture if payment of the subordinated debt securities is accelerated because of an event of default.

Under the subordinated indenture, we may also not make payment on the subordinated debt securities if:

- a default in our obligations to pay principal, premium, if any, interest or other amounts on our senior debt occurs and the default continues beyond any applicable grace period, which we refer to as a payment default; or
- a nonpayment default occurs and is continuing with respect to designated senior debt that permits holders of designated senior debt to accelerate its maturity, and the trustee receives a payment blockage notice from us or some other person permitted to give the notice under the subordinated indenture, which we refer to as a non-payment default.

We may and shall resume payments on the subordinated debt securities:

- in case of a payment default, when the default is cured or waived or ceases to exist; and

- in case of a nonpayment default, the earlier of when the default is cured or waived or ceases to exist or 179 days after the receipt of the payment blockage notice.

No new payment blockage period may start on the basis of a nonpayment default unless at least 365 days have elapsed from the initial effectiveness of the immediately prior payment blockage notice. No nonpayment default that existed or was continuing on the date of delivery of any payment blockage notice to the trustee shall be the basis for a subsequent payment blockage notice.

As a result of these subordination provisions, in the event of our bankruptcy, dissolution or reorganization, holders of senior debt may receive more, ratably, and holders of the subordinated debt securities may receive less, ratably, than our other creditors. The subordination provisions will not prevent the occurrence of any event of default under the subordinated indenture.

The subordination provisions will not apply to payments from money or government obligations held in trust by the trustee for the payment of principal, interest and premium, if any, on subordinated debt securities pursuant to the provisions described under "Satisfaction and Discharge; Defeasance," if the subordination provisions were not violated at the time the money or government obligations were deposited into trust.

If the trustee or any holder receives any payment that should not have been made to them in contravention of subordination provisions before all senior debt is paid in full in cash or other payment satisfactory to holders of senior debt, then such payment will be held in trust for the holders of senior debt.

Senior debt securities will constitute senior debt under the subordinated indenture.

Additional or different subordination provisions may be described in a prospectus supplement relating to a particular series of debt securities.

Definitions

"*Designated senior debt*" means our obligations under any particular senior debt in which the instrument creating or evidencing the same or the assumption or guarantee thereof, or related agreements or documents to which we are a party, expressly provides that such indebtedness shall be designated senior debt for purposes of the subordinated indenture. The instrument, agreement or other document evidencing any designated senior debt may place limitations and conditions on the right of such senior debt to exercise the rights of designated senior debt.

"*Indebtedness*" means the following, whether absolute or contingent, secured or unsecured, due or to become due, outstanding on the date of the indenture for such series of securities or thereafter created, incurred or assumed:

- our indebtedness evidenced by a credit or loan agreement, note, bond, debenture or other written obligation;
- all of our obligations for borrowed money;
- all of our obligations evidenced by a note or similar instrument given in connection with the acquisition of any businesses, properties or assets of any kind,
- our obligations:
 - as lessee under leases required to be capitalized on the balance sheet of the lessee under generally accepted accounting principles, or
 - as lessee under other leases for facilities, capital equipment or related assets, whether or not capitalized, entered into or leased for financing purposes;
- all of our obligations under interest rate and currency swaps, caps, floors, collars, hedge agreements, forward contracts or similar agreements or arrangements;
- all of our obligations with respect to letters of credit, bankers' acceptances and similar facilities, including reimbursement obligations with respect to the foregoing;

- all of our obligations issued or assumed as the deferred purchase price of property or services, but excluding trade accounts payable and accrued liabilities arising in the ordinary course of business;
- all obligations of the type referred to in the above clauses of another person and all dividends of another person, the payment of which, in either case, we have assumed or guaranteed, for which we are responsible or liable, directly or indirectly, jointly or severally, as obligor, guarantor or otherwise, or which are secured by a lien on our property; and
- renewals, extensions, modifications, replacements, restatements and refundings of, or any indebtedness or obligation issued in exchange for, any such indebtedness or obligation described in the above clauses of this definition.

“*Senior debt*” means the principal of, premium, if any, and interest, including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding, on, and all fees and other amounts payable in connection with, our indebtedness. Senior debt shall not include:

- any debt or obligation if its terms or the terms of the instrument under which or pursuant to which it is issued expressly provide it shall not be senior in right of payment to the subordinated debt securities or expressly provide that such indebtedness is on the same basis or “junior” to the subordinated debt securities; or
- debt to any of our subsidiaries.

“*Subsidiary*” means an entity more than 50% of the outstanding voting stock of which is owned, directly or indirectly, by us or by one or more of our other subsidiaries or by a combination of us and our other subsidiaries. For purposes of this definition, “voting stock” means stock or other similar interests to us which ordinarily has or have voting power for the election of directors, or persons performing similar functions, whether at all times or only so long as no senior class of stock or other interests has or have such voting power by reason of any contingency.

Certain Considerations Relating to Foreign Currencies

Debt securities denominated or payable in foreign currencies may entail significant risks. These risks include the possibility of significant fluctuations in the foreign currency markets, the imposition or modification of foreign exchange controls and potential illiquidity in the secondary market. These risks will vary depending upon the currency or currencies involved and will be described in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase common stock, preferred stock or debt securities and be issued in one or more series. Warrants may be offered independently or in combination with common stock, preferred stock or debt securities offered by any prospectus supplement. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The following description of warrants will apply to the warrants offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that describe the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants. The following summaries of material terms and provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the form of warrant and/or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements applicable to a particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplement related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete form of warrant and/or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements, that contain the terms of the warrants.

General

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

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such securities or each principal amount of such security;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the date on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- a discussion of any material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. The warrants may be exercised as set forth in the prospectus supplement relating to the warrants offered. Unless we otherwise specify in the applicable prospectus supplement, warrants may be exercised at any time up to the close of business on the expiration date set forth in the prospectus supplement relating to the warrants offered thereby. After the close of business on the expiration date, unexercised warrants will become void.

Upon receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable upon such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

Governing Law

Unless we otherwise specify in the applicable prospectus supplement, the warrants and any warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

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

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase shares of our common stock or preferred stock. These subscription rights may be issued independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any offering of subscription rights will include specific terms relating to the offering, including:

- the price, if any, for the subscription rights;
- the exercise price payable for each share of common stock or preferred stock upon the exercise of the subscription rights;
- the number of subscription rights to be offered to each shareholder;
- the number and terms of the shares of common stock or preferred stock which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the procedures and limitations relating to the exchange and exercise of the subscription rights;
- the dates on which the right to exercise the subscription rights shall commence and expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities or an over-allotment privilege to the extent the securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement that we may enter into in connection with the offering of subscription rights.

The preceding summary of the terms of the subscription rights does not purport to be complete and is subject to, and is qualified in its entirety by reference to, the terms of the subscription rights being offered, as well as any applicable subscription rights certificate and the terms of the securities to which the subscription rights relate. Therefore, you should carefully consider the actual provisions of the subscription right, and subscription agreement and the applicable securities.

DESCRIPTION OF UNITS

We may issue units comprising one or more securities described in this prospectus in any combination. The following description sets forth certain general terms and provisions of the units that we may offer pursuant to this prospectus. The particular terms of the units and the extent, if any, to which the general terms and provisions may apply to the units so offered will be described in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the unit will have the rights and obligations of a holder of each included security. Units will be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date. A copy of the forms of the unit agreement and the unit certificate relating to any particular issue of units will be filed with the SEC each time we issue units, and you should read those documents for provisions that may be important to you.

The prospectus supplement relating to any particular issuance of units will describe the terms of those units, including, to the extent applicable, the following:

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

PLAN OF DISTRIBUTION

We may sell the securities offered under this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters, dealers or agents or directly to one or more purchasers. The securities may be distributed from time to time in one or more transactions (or in any combination) at:

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

For each type and series of securities offered, the applicable prospectus supplement will set forth the terms of the offering, including, without limitation:

- the public offering price;
- the names of any underwriters, dealers or agents and the amount of securities underwritten or purchased by each of them, if any;
- any delayed delivery arrangements;
- the proceeds from the sale of securities to us and the use of proceeds from the sale of the securities;
- any underwriting discounts, concessions, commissions, agency fees or other compensation payable to underwriters, dealers or agents;
- any discounts or concessions allowed or re-allowed or repaid to dealers;
- estimated offering expenses; and
- the securities exchanges on which the securities will be listed, if any.

We may grant underwriters options to purchase additional securities at the public offering price, with additional underwriting commissions or discounts, as applicable, set forth in the prospectus supplement. The terms of any such option will be set forth in the prospectus supplement for those securities.

Underwriters or agents may make sales in privately negotiated transactions and/or any other method permitted by law, including sales deemed to be an "at-the-market" offering as defined in Rule 415 under the Securities Act, which includes sales made directly on Nasdaq, the existing trading market for our common stock, or sales made to or through a market maker other than on an exchange.

We may issue to our existing security holders, though a dividend or similar distribution, rights to purchase shares of our common stock or preferred stock, which may or may not be transferable. In any distribution of rights to our existing security holders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to facilitate the distribution of the unsubscribed securities. The applicable prospectus supplement will describe the specific terms of any offering of our common stock or preferred stock through the issuance of rights including, if applicable, the material terms of any standby underwriting agreement or purchase agreement.

Sales Through Underwriters, Dealers or Agents; Direct Sales

If we use underwriters in any sale of securities offered under this prospectus, the underwriters will buy the securities for their own account, including through underwriting, purchase, security lending or repurchase agreements with us. The underwriters may then resell the securities in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale or thereafter. Unless otherwise indicated in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions and the underwriters will be obligated to purchase all the securities offered if they purchase any securities. The public offering price for the securities and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

If we use dealers in any sale of securities offered under this prospectus, the securities will be sold to such dealers as principals. The dealers may then resell the securities to the public at varying prices to be determined by such dealers at the time of resale.

If agents are used in any sale of securities offered under this prospectus, they will use their reasonable best efforts to solicit purchases for the period of their appointment or to sell our securities on a continuing basis. If required, the prospectus supplement relating to any particular offering of securities will name any agents designated to solicit offers and will include information about any commissions they may be paid in that offering.

If securities offered under this prospectus are sold directly, no underwriters, dealers or agents would be involved.

We are not making an offer of securities in any state that does not permit such an offer. If we sell securities through dealers or agents, or directly, the terms of any such sales will be described in the applicable prospectus supplement.

Delayed Delivery Contracts

We may authorize underwriters, dealers or agents to solicit offers from certain institutions whereby the institution contractually agrees to purchase the securities offered under this prospectus from us on a future date at a specific price. This type of contract may be made only with institutions that we specifically approve. Such institutions could include banks, insurance companies, pension funds, investment companies and educational and charitable institutions. The underwriters, dealers or agents will not be responsible for the validity or performance of these contracts. The prospectus supplement relating to the contracts will set forth the price to be paid for offered securities pursuant to such contracts, the commission payable for solicitation of the contracts and the date or dates in the future for delivery of offered securities pursuant to the contracts.

Market Making, Stabilization and Other Transactions

Each issue of a new series of securities, other than issuances of our common stock, will not have an established trading market, except as indicated in the applicable prospectus supplement. Unless indicated in the applicable prospectus supplement, we do not expect to list the offered securities on a securities exchange, except for our common stock, which is listed on Nasdaq. We can provide no assurance as to whether any of our securities will have a liquid trading market.

In order to facilitate the offering of any of the securities offered under this prospectus, the underwriters with respect to any such offering may, as described in the prospectus supplement and in accordance with applicable law, engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on these securities. Stabilizing transactions involve bids to purchase the underlying security in the open market for the purpose of preventing or delaying a decline in the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions. Any of these activities may have the effect of raising or maintaining the market price of our securities or preventing or delaying a decline in the market price of our securities. As a result, the market price of the securities may be higher than it otherwise would be in the absence of these transactions. The underwriters are not required to engage in these activities, and may end any of these activities at any time, all as described in the applicable prospectus supplement.

Any person participating in the distribution of securities will be subject to applicable provisions of the Exchange Act and the rules and regulations under the Exchange Act, including Regulation M, which may limit the timing of transactions involving the securities offered under this prospectus. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of such securities to engage in market-making activities with respect to the particular securities being distributed. All of the above

may affect the marketability of the securities offered under this prospectus and the ability of any person or entity to engage in market-making activities with respect to such securities.

Derivative Transactions and Hedging

We, the underwriters or other agents engaged by us may engage in derivative transactions involving the securities. These derivatives may consist of short sale transactions and other hedging activities. The underwriters or agents may acquire a long or short position in the securities, hold or resell securities acquired and purchase options or futures on the securities and other derivative instruments with returns linked or related to changes in the price of the securities. In order to facilitate these derivative transactions, we may enter into security lending or repurchase agreements with the underwriters or agents. The underwriters or agents may effect the derivative transactions through sales of the securities to the public, including short sales, or by lending the securities in order to facilitate short sale transactions by others. The underwriters or agents may also use the securities purchased or borrowed from us or others (or, in the case of derivatives, securities received from us in settlement of those derivatives) to directly or indirectly settle sales of the securities or close out any related open borrowings of the securities.

Electronic Auctions

We may also make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet or other forms of electronic bidding or ordering systems for the pricing and allocation of such securities, you will want to pay particular attention to the description of that system, which we will provide in a prospectus supplement.

Such electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which such securities are sold. These bidding or ordering systems may present to each bidder, on a so-called "real-time" basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder's individual bids would be accepted, prorated or rejected. For example, in the case of debt security, the clearing spread could be indicated as a number of "basis points" above an index treasury note.

Upon completion of such an electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

General Information

We expect that any agreements we may have with underwriters, dealers and agents will include provisions indemnifying them against certain civil liabilities, including certain liabilities under the Securities Act, or providing for contribution with respect to payments that they may be required to make. An underwriter, dealer or agent, or any of their affiliates, may be a customer of, or otherwise engage in transactions with or perform services for us in the ordinary course of business.

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

Under the securities laws of various states, the securities offered under this prospectus may be sold in those states only through registered or licensed brokers or dealers. In addition, in various states the securities offered under this prospectus may not be offered and sold unless such securities have been registered or qualified for sale in the state or an exemption from such registration or qualification is available. We are not making an offer of securities in any state that does not permit such an offer.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities will be passed upon for us by Covington & Burling LLP, Washington, D.C. If legal matters are passed upon by counsel for the underwriters, dealers or agents, if any, such counsel will be named in the prospectus supplement relating to such offering.

EXPERTS

The financial statements incorporated in this prospectus by reference to the [Annual Report on Form 10-K for the year ended December 31, 2021](#) have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

PROSPECTUS SUPPLEMENT



25,000,000 Shares

Common Stock

Joint Book-running Managers

TD Cowen

Barclays

BTIG

Lead Managers

H.C. Wainwright & Co.

The Benchmark Company

March 25, 2025
