

PROSPECTUS



Up to \$80,000,000

Common Stock

We have entered into an Open Market Sale AgreementSM, dated September 1, 2022 (the “Sales Agreement”), with Jefferies LLC (“Jefferies”), relating to the sale of shares of our common stock, par value \$0.0001 per share, offered by this prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$80,000,000 from time to time through the Jefferies, acting as our sales agent or principal.

Our common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the symbol “HUMA.” On August 31, 2022, the last reported sale price per share of our common stock was \$3.65 per share.

Sales of our common stock, if any, under this prospectus supplement may be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the “Securities Act”). Jefferies is not required to sell any specific number or dollar amount of our common stock, but will act as our sales agent using commercially reasonable efforts, consistent with its normal trading and sales practices, on mutually agreed terms between us and Jefferies. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Jefferies will be entitled to compensation under the terms of the Sales Agreement at a commission rate of 3.0% of the gross sales price of any shares sold under the Sales Agreement. See “*Plan of Distribution*” for additional information regarding compensation to be paid to the Jefferies. In connection with the sale of our common stock on our behalf, Jefferies will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Jefferies against certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

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 6 of this prospectus and in the documents incorporated by reference into this prospectus.

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

Jefferies

The date of this prospectus is September 9, 2022.

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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 statement under the Securities Act. Under this shelf registration process, we may offer and sell shares of our common stock having an aggregate offering price of up to \$80,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering.

Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus and the information incorporated by reference as described under the heading “Where You Can Find More Information.” These documents contain important information that you should consider when making your investment decision.

This prospectus 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. 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.

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.

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, and Jefferies has not, authorized anyone to provide you with information in addition to or different from that contained in this prospectus or any 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 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 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 does 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 6 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;
- the use of proceeds from this offering, if any; 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.

PROSPECTUS SUMMARY

This summary description about us, our business and this offering highlights selected information contained elsewhere in this prospectus or incorporated in this prospectus by reference. This summary does not contain all of the information you should consider before deciding to invest in our common stock. You should carefully read this entire prospectus and any free writing prospectus with respect to this offering filed by us with the SEC, including each of the documents incorporated herein or therein by reference, before making an investment decision. Investors should carefully consider the information set forth under “Risk Factors” on page 6 and in the documents incorporated by reference into this prospectus.

Company Overview

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.

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*.”

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.

THE OFFERING

Common stock to be offered by us	Shares of our common stock having an aggregate offering price of up to \$80,000,000.
Common stock to be outstanding after this offering	Up to 111,006,803 (assuming the issuance of up to 8,000,000 shares of our common stock based on an assumed sales price of \$10.00 per share, which is the minimum sales price authorized by our board of directors). The actual number of shares issued will vary depending on the sales price under this offering.
Plan of Distribution	“At-the-market offering” that may be made from time to time through our sales agent, Jefferies. See “ <i>Plan of Distribution</i> ” on page 14 of this prospectus.
Use of Proceeds	We intend to use the net proceeds from this offering to fund the continued development of the product candidates in our pipeline and for working capital and general corporate purposes. See “ <i>Use of Proceeds</i> ” on page 8 of this prospectus.
Risk Factors	Investing in our common stock involves a high degree of risk. See “ <i>Risk Factors</i> ” beginning on page 6 of this prospectus and other information included in this prospectus and the documents incorporated by reference in this 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

The number of shares of common stock that will be outstanding after this offering is based on 103,006,803 shares of common stock outstanding as of June 30, 2022, and excludes the following:

- 517,506 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2022 at a weighted-average exercise price of \$1.29 per share under our 2005 Stock Option Plan, of which all options were vested as of June 30, 2022;
- 5,640,354 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2022 at a weighted-average exercise price of \$7.83 per share under our 2015 Omnibus Incentive Plan, of which 4,236,395 options were vested as of June 30, 2022;
- 742,135 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2022 at a weighted-average exercise price of \$7.42 per share under our 2021 Long-Term Incentive Plan, of which 250 options were vested as of June 30, 2022;
- 5,588,506 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$11.41 per share;
- 7,226,977 shares of our common stock reserved for future issuance as of June 30, 2022 under our 2021 Long-Term Incentive Plan; and
- 1,030,033 shares of our common stock available for future issuance as of June 30, 2022 under our 2021 Employee Stock Purchase Plan.

In addition, unless we specifically state otherwise, all information in this prospectus assumes no exercise of outstanding options or warrants subsequent to June 30, 2022.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Our business, financial condition and results of operations could be materially and adversely affected by any of these risks. If any of these risks occur, the value of our common stock may decline and you may lose all or part of your investment. Before investing in our common stock, you should consider carefully the risk factors set forth in this prospectus and contained in any free writing prospectus with respect to this offering filed by us with the SEC, along with the risk factors described in “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2021, as updated by other filings we have made and will make with the SEC incorporated by reference into this prospectus.

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 [8](#) of this prospectus for further information.

You may experience immediate dilution in the net tangible book value per share of the common stock you purchase.

The shares sold in this offering will be sold from time to time at various prices. The price per share of our common stock being offered may, at the time of sale, be higher than the net tangible book value per share of our common stock outstanding prior to this offering. After giving effect to the assumed sale of shares of our common stock in the aggregate amount of \$80,000,000 at an assumed public offering price of \$10.00 per share, the minimum sales price authorized by our board of directors, and after deducting commissions and estimated offering expenses, our as adjusted net tangible book value as of June 30, 2022 would have been \$219.6 million, or \$1.98 per share. This would represent an immediate increase in net tangible book value of \$0.60 per share to our existing stockholders and an immediate decrease in as adjusted net tangible book value of \$8.02 per share to purchasers of our common stock in this offering. Please see the section entitled “*Dilution*” on page [12](#) of this prospectus. Notwithstanding this illustration, because the price per share of our common stock being offered may, at the time of sale, be higher than the net tangible book value per share of our common stock outstanding prior to this offering, there is still a risk that you may experience immediate and substantial dilution.

Issuances of shares of common stock or securities convertible into or exercisable for shares of common stock following this offering, as well as the exercise of options, will dilute your ownership interests and may adversely affect the future market price of our common stock.

As a development-stage company we will need additional capital to fund the development and commercialization of our product candidates. We may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements, which may cause your ownership interest to be diluted. In addition, as of June 30, 2022, there were options to purchase approximately 6,899,995 shares of our common stock outstanding at a weighted average exercise price of \$7.29 per share and warrants to purchase approximately 5,588,506 shares of our common stock outstanding at a weighted average exercise price of \$11.41 per share. If these securities are exercised, you may incur dilution. Moreover, to the extent that we issue additional options or warrants to purchase, or other securities convertible into or exchangeable for, shares of our common stock in the future and those options, warrants or other securities are exercised, converted or exchanged, stockholders may experience dilution.

A substantial number of shares may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and all of the shares sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act, unless these shares are owned or purchased by “affiliates” as that term is defined in Rule 144 under the Securities Act. In addition, we have also registered the shares of common stock that we may issue under our equity incentive plans. As a result, these shares can be freely sold in the public market upon issuance, subject to restrictions under securities laws.

It is not possible to predict the actual number of shares we will sell under the Sales Agreement, or the gross proceeds resulting from those sales.

Subject to certain limitations in the Sales Agreement and compliance with applicable laws, we have the discretion to deliver a placement notice to Jefferies at any time throughout the term of the Sales Agreement. The number of shares that are sold through Jefferies after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the term of the Sales Agreement, the limits we set with Jefferies in any applicable placement notice, and the demand for our common stock during the term of the Sales Agreement. Additionally, our board of directors could change the minimum sales price that we are authorized to sell shares under the Sales Agreement. Because the price per share of each share sold will fluctuate during the term of the Sales Agreement, it is not currently possible to predict the number of shares that will be sold or the gross proceeds to be raised in connection with the sales of shares of common stock offered under this prospectus.

The market price and trading volume of our stock may be volatile.

The trading price of our common stock has been, and may continue to be, volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. To date during 2022, the closing price of our common stock has ranged from \$3.21 and \$7.86 per share. In addition, the trading volume of our common stock may fluctuate and cause significant price variations to occur. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this prospectus or the documents incorporated by reference herein, these factors include:

- 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;
- changes in government regulation;
- the impact of the COVID-19 pandemic on our business and operations;
- potential or actual military conflicts or acts of terrorism;
- announcements concerning Humacyte 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.

The stock market in general has, from time to time, experienced extreme price and volume fluctuations. In addition, in the past, following periods of volatility in the overall market and decreases in the market price of a company’s securities, securities class action litigation has often been instituted against these companies. We have been in the past, and may continue to be, subject to securities litigation, from time to time. Any litigation that may be brought against us could result in substantial costs and a diversion of our management’s attention and resources.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$80,000,000 from time to time. Because there is no minimum offering amount required in this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the Sales Agreement with Jefferies as a source of financing.

We currently intend to use the net proceeds from the sale of the securities offered hereby 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. 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 and the documents incorporated by reference herein, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds.

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.

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.

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.

DILUTION

If you invest in our common stock in this offering, your ownership interest may be diluted 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 June 30, 2022, our net tangible book value was \$142.3 million, or \$1.38 per share of common stock. Net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by 103,006,803, the number of shares of common stock outstanding as of June 30, 2022.

After giving effect to the assumed sale of our common stock in the aggregate amount of \$80,000,000 at an assumed offering price of \$10.00 per share, the minimum sales price authorized by our board of directors, and after deducting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2022 would have been \$219.6 million, or \$1.98 per share of common stock. This amount would represent an immediate increase in net tangible book value of \$0.60 per share to our existing stockholders and an immediate decrease in net tangible book value of \$8.02 per share to investors purchasing shares in this offering.

The following table illustrates this calculation on a per share basis. The as adjusted information is illustrative only and will adjust based on the actual price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our common stock are sold pursuant to this prospectus. The shares sold in this offering, if any, will be sold from time to time at various prices. Therefore, while this illustration reflects accretion to investors purchasing shares in this offering, depending on the price at which shares are sold in this offering, investors purchasing shares in this offering may experience dilution.

Assumed public offering price per share	\$	10.00
Net tangible book value per share as of June 30, 2022	\$	1.38
Increase in net tangible book value per share attributable to investors purchasing shares in this offering	\$	0.60
As adjusted net tangible book value per share as of June 30, 2022, after giving effect to this offering	\$	1.98
Dilution per share to investors purchasing our common stock in this offering	\$	(8.02)

The table above assumes for illustrative purposes that an aggregate of 8,000,000 shares of our common stock are sold pursuant to this prospectus at a price of \$10.00 per share, the minimum sales price authorized by our board of directors, for aggregate gross proceeds of \$80,000,000. The shares sold in this offering, if any, will be sold from time to time at various prices pursuant to the Sales Agreement with the Sales Agents. A \$1.00 increase in the assumed public offering price of \$10.00 per share, which is the minimum sales price authorized by our board of directors, would increase our as adjusted net tangible book value per share to \$1.99, resulting in dilution to investors purchasing shares in this offering of \$9.01 per share, after deducting commissions and estimated offering expenses payable by us.

The foregoing table and calculations are based on 103,006,803 shares of our common stock outstanding as of June 30, 2022, and exclude:

- 517,506 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2022 at a weighted-average exercise price of \$1.29 per share under our 2005 Stock Option Plan, of which all options were vested as of June 30, 2022;
- 5,640,354 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2022 at a weighted-average exercise price of \$7.83 per share under our 2015 Omnibus Incentive Plan, of which 4,236,395 options were vested as of June 30, 2022;
- 742,135 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2022 at a weighted-average exercise price of \$7.42 per share under our 2021 Long-Term Incentive Plan, of which 250 options were vested as of June 30, 2022;
- 5,588,506 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$11.41 per share;

- 7,226,977 shares of our common stock reserved for future issuance as of June 30, 2022 under our 2021 Long-Term Incentive Plan; and
- 1,030,033 shares of our common stock available for future issuance as of June 30, 2022 under our 2021 Employee Stock Purchase Plan.

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.

PLAN OF DISTRIBUTION

We have entered into the Sales Agreement with Jefferies, under which we may offer and sell up to \$80,000,000 of our shares of common stock from time to time through Jefferies acting as agent. Sales of our shares of common stock, if any, under this prospectus will be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act.

Each time we wish to issue and sell our shares of common stock under the Sales Agreement, we will notify Jefferies of the number of shares to be issued, the dates on which such sales are anticipated to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Jefferies, unless Jefferies declines to accept the terms of such notice, Jefferies has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Jefferies under the Sales Agreement to sell our shares of common stock are subject to a number of conditions that we must meet.

The settlement of sales of shares between us and Jefferies is generally anticipated to occur on the second trading day following the date on which the sale was made. Sales of our shares of common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and Jefferies may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Jefferies a commission equal to 3.0% of the aggregate gross proceeds we receive from each sale of our shares of common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Jefferies for the fees and disbursements of its counsel, payable upon execution of the Sales Agreement, in an amount not to exceed \$75,000, in addition to certain ongoing disbursements of its legal counsel. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Jefferies under the terms of the Sales Agreement, will be approximately \$258,000. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Jefferies will provide written confirmation to us before the open on The Nasdaq Global Select Market on the day following each day on which our shares of common stock are sold under the Sales Agreement. Each confirmation will include the number of shares sold on that day, the aggregate gross proceeds of such sales and the proceeds to us.

In connection with the sale of our shares of common stock on our behalf, Jefferies will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Jefferies against certain civil liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Jefferies may be required to make in respect of such liabilities.

The offering of our shares of common stock pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the Sales Agreement and (ii) the termination of the Sales Agreement as permitted therein. We and Jefferies may each terminate the Sales Agreement at any time upon ten trading days’ prior notice.

This summary of the material provisions of the Sales Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Sales Agreement is filed as an exhibit to the registration statement of which this prospectus forms a part.

Jefferies and its affiliates may in the future provide various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they may in the future receive customary fees. In the course of its business, Jefferies may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Jefferies may at any time hold long or short positions in such securities.

This prospectus in electronic format may be made available on a website maintained by Jefferies, and Jefferies may distribute this prospectus electronically.

LEGAL MATTERS

The validity of the securities by this prospectus will be passed upon for us by Covington & Burling LLP, Washington, D.C. Goodwin Procter LLP, New York, New York is counsel for Jefferies 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, 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.

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.

PROSPECTUS



Up to \$80,000,000

Common Stock

Jefferies

September 9, 2022
