

PROSPECTUS SUPPLEMENT
(To prospectus dated March 19, 2021)



13,461,540 Common Shares

We are offering 13,461,540 of our common shares to certain investors in a registered direct offering pursuant to this prospectus supplement, the accompanying prospectus, and a stock purchase agreement with such investors. Each common share will be sold at a price of \$1.04.

An existing significant shareholder, Broadwood Partners, L.P., which is affiliated with Neal Bradsher, a member of the Company's board of directors, agreed to purchase 6,730,770 common shares in the offering, and Don M. Bailey, a member of the Company's board of directors, agreed to purchase approximately 100,000 common shares in the offering.

Our common shares are listed on the NYSE American and on the Tel Aviv Stock Exchange under the symbol "LCTX." On February 5, 2024, the last reported sale price of our common shares on the NYSE American was \$1.04.

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks described on page S-4 of this prospectus supplement under the caption "Risk Factors," on page 5 of the accompanying prospectus and the risks described in the documents incorporated by reference into this prospectus supplement.

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

Delivery of our common shares is expected to be made on or about February 8, 2024, subject to customary closing conditions.

The date of this prospectus supplement is February 6, 2024.

TABLE OF CONTENTS

Prospectus Supplement

ABOUT THIS PROSPECTUS SUPPLEMENT	S-ii
PROSPECTUS SUPPLEMENT SUMMARY	S-1
RISK FACTORS	S-4
SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS	S-6
USE OF PROCEEDS	S-7
DILUTION	S-8
PLAN OF DISTRIBUTION	S-9
LEGAL MATTERS	S-9
EXPERTS	S-10
WHERE YOU CAN FIND MORE INFORMATION	S-10
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	S-11

Prospectus Dated March 19, 2021

ABOUT THIS PROSPECTUS	i
PROSPECTUS SUMMARY	1
RISK FACTORS	5
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	6
USE OF PROCEEDS	7
DESCRIPTION OF CAPITAL STOCK	8
DESCRIPTION OF DEBT SECURITIES	10
DESCRIPTION OF WARRANTS	17
PLAN OF DISTRIBUTION	22
LEGAL MATTERS	24
EXPERTS	24
WHERE YOU CAN FIND MORE INFORMATION	24
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	24

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus relate to the offering of our common shares. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we may authorize for use in connection with this offering in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled, “Where You Can Find More Information” and “Incorporation by Reference.” These documents contain important information that you should consider when making your investment decision.

This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement on Form S-3 (File No. 333-254167) that we initially filed with the Securities and Exchange Commission (the “SEC”) on March 11, 2021, and that became effective on March 19, 2021. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the offering of our common shares and 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, the accompanying prospectus, including the documents incorporated by reference into the accompanying prospectus, provides more general information, some of which may not apply to the offering. Generally, when we refer to this prospectus, we are referring to the combined document consisting of this prospectus supplement and the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference into the accompanying prospectus that was filed with the SEC before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not authorized any other person to provide you with different information, and we take no responsibility for any other information that others may give you.

We are not making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference includes trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks or trade names appearing in or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners. Solely for convenience, the trademarks, service marks and trade names appearing in or incorporated by reference into this prospectus supplement or the accompanying prospectus may be referred to without the symbols “®” and “™”, but such references should not be construed as any indication that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. Use or display by us of other parties’ trademarks, service marks or trade names is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark, service mark or trade name owners.

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 into this prospectus supplement 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.

Unless otherwise indicated, information contained in this prospectus supplement, the accompanying prospectus, and in the documents we incorporate by reference herein and therein concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market size, is based on information from various sources, including peer reviewed journals, formal presentations at medical and scientific society meetings and third-parties commissioned by us or our licensors to provide market research and analysis, and is subject to a number of assumptions and limitations. Although we are responsible for all of the disclosure contained in this prospectus supplement, the accompanying prospectus, and in the documents we incorporate by reference, and we believe the information from industry publications and other third-party sources included herein and therein is reliable, such information is inherently imprecise. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors.

Unless the context otherwise requires, “Lineage,” “the Company,” “we,” “us,” “our” and similar terms refer to Lineage Cell Therapeutics, Inc. and its consolidated subsidiaries. When we refer to “you” we mean potential holders of the securities we may offer under this prospectus supplement and accompanying prospectus.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement and in the documents we incorporate by reference. This summary is not complete and does not contain all the information you should consider before investing in our securities pursuant to this prospectus supplement and the accompanying prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including the financial statements and related notes and the other information that we incorporated by reference herein, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we file from time to time.

About Lineage

We are a clinical-stage biotechnology company developing novel allogeneic, or “off-the-shelf”, cell therapies to address unmet medical needs. Our programs are based on our proprietary, cell-based technology platform, and its associated development and manufacturing capabilities. From this platform, we design, develop, manufacture, and test specialized human cells with anatomical and physiological functions similar or identical to cells found naturally in the human body. The cells we manufacture are created by applying directed differentiation protocols to established, well-characterized, and self-renewing pluripotent cell lines. These protocols generate cells with characteristics associated with specific and desired developmental lineages. Cells derived from such lineages which are relevant to the underlying condition are transplanted into patients in an effort to (a) replace or support cells that are absent or dysfunctional due to degenerative disease, aging, or traumatic injury, and (b) restore or augment the patient’s functional activity.

Our business strategy is to efficiently leverage our technology platform and our development, formulation, delivery, and manufacturing capabilities to advance our programs internally or in conjunction with strategic partners to further enhance their value and probability of success.

A significant area of focus is a partnership we entered into with F. Hoffmann-La Roche Ltd and Genentech, Inc., a member of the Roche Group (collectively or individually, “Roche” or “Genentech”), under which we are developing our lead cell therapy program known as OpRegen®, for the treatment of ocular disorders, including geographic atrophy (“GA”) secondary to age-related macular degeneration (“AMD”). OpRegen is a suspension of human allogeneic retinal pigmented epithelial (“RPE”) cells and is currently being evaluated in a Phase 2a multicenter clinical trial in patients with GA secondary to AMD. OpRegen subretinal delivery has the potential to counteract RPE cell loss in areas of GA lesions by supporting retinal cell health and improving retinal structure and function. Under the terms of the Collaboration and License Agreement we entered into with Roche in December 2021 (the “Roche Agreement”), we received a \$50.0 million upfront payment and are eligible to receive up to \$620.0 million in certain developmental, regulatory, and commercialization milestone payments. We also are eligible to receive tiered double-digit percentage royalties on net sales of OpRegen in the U.S. and other major markets.

Our most advanced unpartnered product candidate is OPC1, an allogeneic oligodendrocyte progenitor cell therapy designed to improve recovery following a spinal cord injury (“SCI”). OPC1 has been tested in two clinical trials to date; a five patient Phase 1 clinical trial in acute thoracic SCI, where all subjects are followed for at least 10 years, and a 25 patient Phase 1/2a multicenter clinical trial in subacute cervical SCI, where all subjects were evaluated for at least two years. Results from both studies have been published in the Journal of Neurosurgery Spine. OPC1 clinical development has been supported in part by a \$14.3 million grant from the California Institute for Regenerative Medicine. The next planned clinical trial for the OPC1 program is the DOSED (Delivery of Oligodendrocyte Progenitor Cells for Spinal Cord Injury: Evaluation of a Novel Device) clinical study, which will evaluate the safety and utility of a novel spinal cord delivery device in both subacute and chronic SCI patients.

Our pipeline of allogeneic, or “off-the-shelf”, cell therapy programs currently includes:

- *OpRegen*, an allogeneic RPE cell replacement therapy currently in a Phase 2a multicenter clinical trial, being conducted by Roche, for the treatment of GA secondary to AMD, also known as atrophic or dry AMD.
- *OPCI*, an allogeneic oligodendrocyte progenitor cell therapy currently in long-term follow-up from a Phase 1/2a multicenter clinical trial for cervical spinal cord injuries.
- *ANPI*, an allogeneic auditory neuron progenitor cell transplant currently in preclinical development for the treatment of debilitating hearing loss.
- *PNCI*, an allogeneic photoreceptor cell transplant currently in preclinical development for the treatment of vision loss due to photoreceptor dysfunction or damage.
- *VAC*, an allogeneic cancer immunotherapy comprised of antigen-presenting dendritic cells. A Phase 1 clinical trial in non-small cell lung cancer of a VAC product candidate, VAC2, was recently completed. This clinical trial was funded and conducted by Cancer Research UK.

Other Programs

We have additional undisclosed product candidates being considered for development and which cover a range of therapeutic areas and unmet medical needs. Generally, these product candidates are based on the same platform technology and employ a similar, guided cell differentiation and transplant approach as the product candidates described above, but in some cases may also include genetic modifications designed to enhance efficacy and/or safety profiles.

Our efforts to broaden the application of our cell therapy platform and support long-term growth include a strategic collaboration we entered into with Eterna Therapeutics Inc. This reflected a portion of our corporate strategy to capitalize on our process development capabilities by combining them with cell engineering and/or editing technologies, to create novel and potentially superior product profiles.

In addition to seeking to create value for shareholders by developing product candidates and advancing those candidates through clinical development, we also may seek to create value from licensing non-core intellectual property or related technologies, through partnering and/or strategic transactions.

Implications of Being a Smaller Reporting Company

We qualify as a “smaller reporting company” under the rules promulgated under the Securities Act of 1933, as amended (the “Securities Act”) and the Securities Exchange Act of 1934, as amended (the “Exchange Act”). As a result, we may choose to take advantage of certain scaled disclosure requirements available specifically to smaller reporting companies. We will remain a smaller reporting company until the last day of the fiscal year in which the aggregate market value of our common shares held by non-affiliated persons and entities, or our public float, is greater than \$250 million as of the last business day of our most recently completed second fiscal quarter, or the last day of the fiscal year in which we have at least \$100 million in revenue and at least \$700 million in public float as of the last business day of our most recently completed second fiscal quarter.

Corporate Information

We were incorporated in the State of California on November 30, 1990. Our principal executive offices are located at 2173 Salk Avenue, Suite 200, Carlsbad, California 92008, and our telephone number at that address is (442) 287-8990. We maintain a website at www.lineagecell.com, to which we regularly post copies of our press releases as well as additional information about us. The information contained on, or that can be accessed through, our website is not a part of this prospectus supplement or the accompanying prospectus. We have included our website address in this prospectus supplement solely as an inactive textual reference.

THE OFFERING

Common shares offered by us	13,461,540 shares.
Offering price	\$1.04 per common share.
Common shares to be outstanding immediately after this offering ⁽¹⁾	188,478,211 shares.
Use of Proceeds	<p>We estimate that the net proceeds to us from this offering, after deducting estimated offering expenses payable by us, will be approximately \$13.8 million.</p> <p>We intend to use the net proceeds for general corporate purposes, which may include clinical trials, research and development activities, general and administrative costs, and to meet working capital needs. See “Use of Proceeds” on page S-7 of this prospectus supplement.</p>
Risk Factors	<p>Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading “Risk Factors” beginning on page S-4 of this prospectus supplement, and under similar headings in documents incorporated by reference into this prospectus supplement and the accompanying prospectus.</p>
NYSE American symbol	Our common shares are listed under the symbol “LCTX.”

(1) The number of our common shares to be outstanding after this offering is based on 175,016,671 shares of our common shares outstanding as of January 26, 2024, and excludes, as of January 26, 2024, the following:

- 21,658,713 common shares issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$1.62 per share awarded under our 2021 Equity Incentive Plan, as amended (our “2021 Equity Incentive Plan”), our 2012 Equity Incentive Plan, as amended (together with our 2021 Equity Incentive Plan, our “equity incentive plans”), or outside of our equity incentive plans pursuant to approval by the independent members of our board of directors in reliance the exception for inducement grants to new employees under the NYSE American Company Guide;
- 667,869 common shares issuable upon vesting and settlement of outstanding restricted stock units under our equity incentive plans; and
- 27,082,894 common shares available for future grant under our 2021 Equity Incentive Plan.

Except as otherwise indicated, all information in this prospectus supplement reflects and assumes the following:

- no issuance, exercise or settlement of stock-based awards under our equity incentive plans; and
- no sales of shares of our common stock through our Controlled Equity OfferingSM Sales Agreement with Cantor Fitzgerald & Co. dated as of May 1, 2020 (the “ATM sales agreement”).

An existing significant shareholder, Broadwood Partners, L.P., which is affiliated with Neal Bradsher, a member of the Company’s board of directors, agreed to purchase 6,730,770 common shares in the offering, and Don M. Bailey, a member of the Company’s board of directors, agreed to purchase approximately 100,000 common shares in the offering.

RISK FACTORS

Before you invest in our securities, in addition to the other information, documents or reports included or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risk factors described below as well as the risk factors set forth in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 as filed with the SEC on March 9, 2023 (our “2022 10-K”), and our subsequent quarterly reports on Form 10-Q, each as filed with the SEC, which are incorporated by reference herein, as well as the other information contained or incorporated by reference into this prospectus supplement and the accompanying prospectus. In addition, please read “Special Note Regarding Forward-Looking Statements” in this prospectus supplement and “Special Note Regarding Forward-Looking Statements” in the accompanying prospectus, where we describe additional uncertainties associated with our business and the forward-looking statements included or incorporated by reference into this prospectus supplement and the accompanying prospectus. Each of the risks described below and in these documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a partial or complete loss of your investment. Please see the sections entitled “Where You Can Find More Information” and “Information Incorporated by Reference” in this prospectus supplement.

We may allocate the net proceeds from this offering in ways that you and other shareholders may not approve.

We intend to use the net proceeds from this offering to fund general corporate purposes, which may include clinical trials, research and development activities, general and administrative costs, and to meet working capital needs. Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our operating results or enhance the value of our common shares. Our failure to apply these funds effectively could have a material adverse effect on our business, impair or delay our ability to develop our product candidates and cause the price of our common shares to decline.

If you purchase the common shares in this offering, you will experience immediate and substantial dilution in your investment. You may experience further dilution if we issue additional equity or equity-linked securities in the future.

The price per share of our common shares being offered is higher than the net tangible book value per share of our outstanding common shares prior to this offering. Accordingly, if you purchase common shares in this offering, you will incur immediate dilution of approximately \$0.92 per common share, representing the difference between the offering price of the common shares and our as adjusted net tangible book value as of September 30, 2023. The exercise of outstanding stock options and the vesting and settlement of outstanding restricted stock units may result in further dilution to your investment in our common shares. See the section entitled “Dilution” in this prospectus supplement for a more complete description of how the value of your investment in our common shares will be diluted upon completion of this offering.

If we issue additional common shares, or securities convertible into or exchangeable or exercisable for our common shares, including under our equity incentive plans and/or under the ATM sales agreement, our shareholders, including investors who purchase common shares in this offering, may experience additional dilution, and any such issuances may result in downward pressure on the market price of our common shares. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater 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 shareholders.

Future sales of substantial amounts of our common shares could adversely affect the market price of our common shares.

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. If additional capital is raised through the sale of equity or equity-linked securities, or perceptions that those sales could occur, the issuance of these securities could result in further dilution to investors purchasing common shares in this offering or result in downward pressure on the market price of our common shares, and our ability to raise capital in the future.

A large number of shares issued in this offering may be sold in the market following this offering, which may depress the market price of our common shares. The common shares issued in this offering will be freely tradable without restriction or further registration under the Securities Act. Sales of a substantial number of our common shares in the public market following this offering could cause the market price of our common shares to decline. If there are more common shares offered for sale than buyers are willing to purchase, then the market price of our common shares may decline to a market price at which buyers are willing to purchase the offered shares and sellers remain willing to sell the shares.

Furthermore, an existing significant shareholder, Broadwood Partners, L.P., which is affiliated with Neal Bradsher, a member of the Company's board of directors, agreed to purchase 6,730,770 common shares in the offering, and Don M. Bailey, a member of the Company's board of directors, agreed to purchase approximately 100,000 common shares in the offering. Such purchases will be at the offering price of \$1.04 per share and on the same terms as the other investors in this offering. Future sales of our common shares by these shareholders could adversely affect the market price of our common shares.

Insiders continue to have substantial control over our company, which could limit your ability to influence the outcome of key transactions, including a change of control.

Our directors, executive officers and their affiliates, in the aggregate, owned approximately 24.3% of our outstanding common shares as of September 30, 2023. In addition, an existing significant shareholder, Broadwood Partners, L.P., which is affiliated with Neal Bradsher, a member of our board of directors, agreed to purchase 6,730,770 of our common shares in this offering at the offering price of \$1.04 per share and on the same terms as the other investors in this offering. As a result, our directors, executive officers and their affiliates could heavily influence or control matters requiring approval by our shareholders, including the election of directors and the approval of mergers, acquisitions or other extraordinary transactions. They may also have interests that differ from yours and may vote in a way with which you disagree, and which may be averse to your interests. This concentration of ownership may have the effect of delaying, preventing or deterring a change of control of our company, could deter certain public investors from purchasing our common shares and might ultimately affect the market price of our common shares.

Because we do not currently intend to declare cash dividends on our common shares in the foreseeable future, you must rely on appreciation of the value of our common shares for any return on your investment.

We do not pay cash dividends on our common shares. For the foreseeable future, we anticipate that any earnings generated in our business will be used to finance the growth of our business and will not be paid out as dividends to holders of our common shares. This means that any return to our shareholders will be limited to the appreciation of their shares and, therefore, our common shares may not be a suitable investment for anyone who needs to earn dividend income from their investments.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference into this prospectus supplement contain or incorporate by reference forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act that involve substantial risks and uncertainties. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements, other than statements of historical facts, in this prospectus supplement and in the documents incorporated herein by reference are forward-looking statements including statements regarding our strategy, future operations, future financial position, projected revenue, funding and expenses, prospects, plans and objectives of management. In some cases, you can identify forward-looking statements by the words “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue” and “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future, although not all forward-looking statements contain these words.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these statements. Forward-looking statements in this prospectus supplement and the documents incorporated herein by reference include, but are not limited to, statements about:

- the potential to receive developmental, regulatory, and commercialization milestone and royalty payments under our Collaboration and License Agreement with Roche and Genentech;
- our plans to research, develop and commercialize our product candidates;
- the initiation, progress, success, cost and timing of our clinical trials and other product development activities;
- the therapeutic potential of our product candidates, and the indications for which we intend to develop our product candidates;
- our ability to successfully manufacture our product candidates for clinical development and, if approved, for commercialization, and the timing and costs of such manufacture;
- the potential of our cell therapy platform;
- our expectations and plans regarding existing and potential future collaborations with third parties such as pharmaceutical and biotechnology companies, government agencies, academic laboratories, and research institutes for the discovery, development, and/or commercialization of novel cell therapy products;
- the size and growth of the potential markets for our product candidates and our ability to serve those markets;
- the potential scope and value of our intellectual property rights;
- the effects on our operations of pandemics and other public health emergencies, including the recent COVID-19 pandemic, geopolitical conflicts and wars, including the Israel-Hamas war, political and economic instability, and other macroeconomic and market conditions, including inflationary pressures and interest rate volatility.
- our expected use of the net proceeds from this offering; and
- other risks and uncertainties, including those described in the “Risk Factors” section of this prospectus supplement.

Forward-looking statements reflect our views and expectations as of the date of they are made about future events and our future performance and condition, and involve known and unknown risks, uncertainties and other factors that may cause our actual activities, performance, results or condition to be materially different from those expressed or implied by the forward-looking statements. You should refer to the “Risk Factors” section contained in this prospectus supplement and any free writing prospectus we authorize for use in connection with this offering, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement, for a discussion of important factors that may cause our actual activities, performance, results and condition to differ materially from those expressed or implied by our forward-looking statements. Given these significant risks, uncertainties and other factors, many of which are beyond our control, our forward-looking statements may prove to be inaccurate, and the inaccuracy may be material. Accordingly, you should not place undue reliance on any forward-looking statement. We anticipate that subsequent events and developments may cause our current views and expectations to change. However, while we may elect to update our forward-looking statements at some point in the future, we undertake no obligation to publicly update any forward-looking statements in this prospectus supplement or any free writing prospectus we authorize for use in connection with this offering or in the documents that are incorporated by reference into this prospectus supplement, whether as a result of new information, future events or otherwise, except as required by law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date after the date of this prospectus supplement.

We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering, after deducting estimated offering expenses payable by us, will be approximately \$13.8 million.

We intend to use the net proceeds from this offering for general corporate purposes, which may include clinical trials, research and development activities, general and administrative costs, and to meet working capital needs. The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the timing and progress of our clinical trial and research and development efforts. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of securities. In addition, while we have not entered into any agreements, commitments or understandings relating to any significant transaction as of the date of this prospectus supplement, we may use a portion of the net proceeds to pursue acquisitions, joint ventures and other strategic transactions.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in interest-bearing securities.

DIVIDEND POLICY

We have not paid cash dividends on our common shares and we do not anticipate paying cash dividends on our common shares in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable laws and contractual limitations, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

DILUTION

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

Our net tangible book value on September 30, 2023 was approximately \$9.4 million, or approximately \$0.06 per common share. Net tangible book value per common share is determined by dividing our net tangible book value, which consists of tangible assets less total liabilities, by the number of common shares outstanding on that date. After giving effect to our receipt of the estimated proceeds from the sale of 13,461,540 common shares at an offering price of \$1.04 per share, and after deducting estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2023, would have been approximately \$23.2 million, or \$0.12 per share. This represents an immediate increase in the net tangible book value of \$0.06 per share to existing shareholders and an immediate dilution of \$0.92 per share to investors in this offering. The following table illustrates this per share dilution:

Offering price per share		\$	1.04
Net tangible book value per share as of September 30, 2023	\$	0.06	
Increase in net tangible book value per share attributable to the offering	\$	0.06	
As adjusted net tangible book value per share as of September 30, 2023, after giving effect to the offering		\$	0.12
Dilution per share to investors in this offering		\$	0.92

The above discussion and table are based on approximately 174,987,000 of our common shares outstanding as of September 30, 2023, and excludes, as of September 30, 2023, the following:

- 23,167,962 common shares issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$1.62 per share awarded under our equity incentive plans or outside of our equity incentive plans pursuant to approval by the independent members of our board of directors in reliance the exception for inducement grants to new employees under the NYSE American Company Guide;
- 759,013 common shares issuable upon vesting and settlement of outstanding restricted stock units under our equity incentive plans; and
- 25,436,929 common shares available for future grant under our 2021 Equity Incentive Plan.

To the extent that any outstanding stock options are exercised, new stock-based awards are issued under our 2021 Equity Incentive Plan, or we issue additional common shares in the future, including under the ATM sales agreement or in connection with other capital raising transactions, there will be further dilution to investors in the offering.

PLAN OF DISTRIBUTION

We are selling the common shares offered hereby directly to the investors without a placement agent, underwriter, broker or dealer. In connection with this offering, we entered into a stock purchase agreement with the investors, the form of which was or will be filed as an exhibit to a Current Report on Form 8-K in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement forms a part.

DESCRIPTION OF COMMON SHARES

Authorized Capital Stock

We are authorized to issue an aggregate of an aggregate of 452,000,000 shares of capital stock, consisting of 450,000,000 common shares, no par value, and 2,000,000 preferred shares, no par value.

Common Shares

See “Description of Capital Stock – Common Shares” beginning on page 8 of the accompanying prospectus for a description of the material terms of our common shares.

See “Description of Capital Stock – Anti-takeover Provisions of the Articles, Bylaws and California Law” beginning on page 9 of the accompanying prospectus for a description of certain provisions of our governing documents and applicable California law that may delay or discourage transactions involving an actual or potential change in control of our company or change in its management, including transactions in which our shareholders might otherwise receive a premium for their shares, or transactions that our shareholders might otherwise deem to be in their best interests.

Exchange Listing

Our common shares trade on the NYSE American and the Tel Aviv Stock Exchange under the symbol “LCTX.”

Transfer Agent and Registrar

The transfer agent and registrar for our common shares is Equiniti Trust Company, LLC.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Sheppard, Mullin, Richter & Hampton, LLP, San Diego, California.

EXPERTS

The consolidated financial statements as of and for the years ended December 31, 2022 and 2021, included in our 2022 10-K, have been audited by WithumSmith+Brown, PC, an independent registered public accounting firm, as set forth in their report, and have been incorporated herein by reference in reliance on the report of WithumSmith+Brown, PC, given on the authority of such firm as experts in auditing and accounting in giving said reports.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Exchange Act and file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers, such as our company, that file documents electronically with the SEC. Our SEC filings are available to the public at the SEC's website address at <http://www.sec.gov>. The information on the SEC's website is not part of this prospectus supplement, and any references to the SEC's website or any other website are inactive textual references only.

We also maintain a website at www.lineagecell.com, through which you can access our SEC filings. The information set forth on our website is not part of this prospectus supplement. We have included our website address in this prospectus supplement solely as an inactive textual reference.

This prospectus supplement and the accompanying prospectus are only part of a registration statement on Form S-3 that we filed with the SEC. This prospectus supplement and the accompanying prospectus omit information contained in the registration statement in accordance with the SEC rules and regulations. You should review the information in and schedules and/or exhibits to the registration statement for further information about us and the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. Statements in this prospectus supplement and the accompanying prospectus concerning any document we filed as an exhibit or schedule to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus supplement the information that we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference is an important part of this prospectus supplement and the accompanying prospectus. We incorporate by reference the documents listed below:

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2022, filed with the SEC on March 9, 2023 and Amendment No.1 thereto on [Form 10-K/A](#) filed with the SEC on April 27, 2023;
- our Quarterly Reports on Form 10-Q for the quarters ended: [March 31, 2023](#), filed with the SEC on May 11, 2023; [June 30, 2023](#), filed with the SEC on August 10, 2023; and [September 30, 2023](#), filed with the SEC on November 9, 2023;
- our Current Reports on Form 8-K filed with the SEC on [May 18, 2023](#), [June 21, 2023](#), and [September 7, 2023](#) (except for any information furnished under Items 2.02 or 7.01 of Form 8-K and all exhibits related to such items); and
- the description of our common shares contained in our Registration Statement on [Form 8-A](#) filed on October 26, 2009, including any amendments thereto or reports filed for the purpose of updating such description, including the description of our common shares in Exhibit 4.02 to our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2022.

The SEC file number for each of the documents listed above is 001-12830.

In addition, all documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus supplement and prior to the termination of this offering shall be deemed to be incorporated by reference into this prospectus supplement and to be a part hereof from the date of filing such reports and other documents (excluding, in each case, any information deemed furnished and not filed, including any exhibit furnished with any Current Report on Form 8-K that is related to Item 2.02 or Item 7.01 thereof).

Any statement contained in this prospectus supplement or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus supplement modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

We will provide to each person, including any beneficial owner, to whom this prospectus supplement is delivered, upon written or oral request and at no cost to the requester, a copy of any or all reports or documents that are incorporated by reference into this prospectus supplement, but not delivered with the prospectus supplement. Such written or oral requests should be directed to:

Lineage Cell Therapeutics, Inc.
2173 Salk Avenue, Suite 200, Carlsbad, CA 92008
Attn: General Counsel
Telephone: (442) 287-8990

You may also access these documents on our website, www.lineagecell.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus supplement. We have included our website address in this prospectus supplement solely as an inactive textual reference.



\$75,000,000

**Common Shares
Preferred Shares
Debt Securities
Warrants**

From time to time, we may offer up to \$75,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

Our common shares trade on the NYSE American and the Tel Aviv Stock Exchange ("TASE") under the symbol "LCTX." On March 10, 2021, the last reported sale price of our common shares on the NYSE American was \$2.25 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the NYSE American, TASE, or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 5 of this prospectus.

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

The date of this prospectus is March 19, 2021.

TABLE OF CONTENTS

Contents

ABOUT THIS PROSPECTUS	i
PROSPECTUS SUMMARY	1
RISK FACTORS	5
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	6
USE OF PROCEEDS	7
DESCRIPTION OF CAPITAL STOCK	8
DESCRIPTION OF DEBT SECURITIES	10
DESCRIPTION OF WARRANTS	17
PLAN OF DISTRIBUTION	22
LEGAL MATTERS	24
EXPERTS	24
WHERE YOU CAN FIND MORE INFORMATION	24
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	24

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (“SEC”) utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$75,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference,” before investing in any of the securities offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither we, nor any agent, underwriter or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus prepared by or on behalf of us or to which we have referred you. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

This prospectus and the information incorporated herein by reference contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find More Information.”

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus. This summary is not complete and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context indicates otherwise, references in this prospectus to “Lineage,” “we,” “us,” “our” and similar references refer to Lineage Cell Therapeutics, Inc. and its consolidated subsidiaries.

Overview

We are a clinical-stage biotechnology company developing novel cell therapies for unmet medical needs. Our focus is to develop therapies for degenerative retinal diseases, neurological conditions associated with demyelination, and aiding the body in detecting and combating cancer. Specifically, Lineage is testing therapies to treat dry age-related macular degeneration, spinal cord injuries, and non-small cell lung cancer. Our programs are based on our proprietary cell-based therapy platform and associated development and manufacturing capabilities. From this platform, we develop and manufacture specialized, terminally or functionally differentiated human cells from established and well-characterized pluripotent cell lines. These differentiated cells are transplanted into a patient either to replace or support cells that are dysfunctional or absent due to degenerative disease or traumatic injury, or are administered as a means of helping the body mount an effective immune response to cancer.

Product Candidates & Other Programs

We have three allogeneic, or “off-the-shelf,” cell therapy programs in clinical development:

- OpRegen, a retinal pigment epithelium cell replacement therapy currently in a Phase 1/2a multicenter clinical trial for the treatment of advanced dry age-related macular degeneration (“AMD”) with geographic atrophy. There currently are no therapies approved by the U.S. Food and Drug Administration (“FDA”) for dry AMD, which accounts for approximately 85-90% of all AMD cases and is a leading cause of blindness in people over the age of 60.
- OPC1, an oligodendrocyte progenitor cell therapy currently in the long-term follow-up portion of a Phase 1/2a multicenter clinical trial for acute spinal cord injuries. This clinical trial has been partially funded by the California Institute for Regenerative Medicine.
- VAC2, an allogeneic cancer immunotherapy of antigen-presenting dendritic cells currently in a Phase 1 clinical trial in non-small cell lung cancer. This clinical trial is being funded and conducted by Cancer Research UK, the world’s largest independent cancer research charity.

In addition to seeking to create value for shareholders by developing product candidates and other technologies through our clinical development programs, we also seek to create value from our technologies through partnering and strategic transactions. We founded two companies that later became publicly traded companies: OncoCyte Corporation and AgeX Therapeutics, Inc (“AgeX”). We no longer hold any common stock in AgeX.

Though our principal focus is on advancing our three cell therapy programs currently in clinical development, we may seek to create additional value through corporate transactions, as we have in the past, or by initiating new programs using our protocols with new protocols and cell lines.

Corporate Information

We are incorporated in the State of California. Our common shares trade on the NYSE American and the Tel Aviv Stock Exchange under the symbol "LCTX." Our principal executive offices are at 2173 Salk Avenue, Suite 200, Carlsbad, CA 92008, and our phone number at that address is (442) 287-8990. Our website address is www.lineagecell.com. The information on, or that can be accessed through our website is not part of this prospectus.

All brand names or trademarks appearing in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and TM, but such references should not be construed as any indication that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

The Securities We May Offer

We may offer our common shares and preferred shares, various series of debt securities and warrants to purchase any of such securities, up to a total aggregate offering price of \$75,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity;
- original issue discount;
- rates and times of payment of interest or dividends;
- redemption, conversion, exchange or sinking fund terms;
- ranking;
- restrictive covenants;
- voting or other rights;
- conversion or exchange prices or rates and any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and
- important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;

- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the estimated net proceeds to us.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

Common Shares. We may issue our common shares from time to time. Each holder of common shares is entitled to one vote for each share on all matters submitted to a vote of shareholders, and, subject to certain exceptions, does not have cumulative voting rights. Subject to preferences that may apply to any outstanding preferred shares, holders of our common shares are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, holders of our common shares are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred shares. Holders of our common shares have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common share. The rights, preferences and privileges of the holders of our common shares are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred shares that we may designate in the future. In this prospectus, we have summarized certain general features of our common shares under the heading “Description of Capital Stock—Common Shares.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to any common shares being offered.

Preferred Shares. We may issue preferred shares from time to time, in one or more series. Under our certificate of incorporation, our board of directors has the authority, without further action by our shareholders (unless such shareholder action is required by applicable law or the rules of any stock exchange or market on which our securities are then traded), to issue up to 2,000,000 preferred shares in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common shares. Any convertible preferred shares we may issue will be convertible into our common shares or exchangeable for our other securities. Conversion may be mandatory or at the holder’s option and would be at prescribed conversion rates.

If we sell any series of preferred shares under this prospectus, we will fix the designations, voting powers, preferences and rights of such series of preferred shares, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit 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 any certificate of designation that describes the terms of the series of preferred shares that we are offering before the issuance of the related series of preferred shares. In this prospectus, we have summarized certain general features of the preferred shares under the heading “Description of Capital Stock—Preferred Shares.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred shares being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred shares.

Debt Securities. From time to time, we may issue debt securities in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common shares or other securities. Conversion may be mandatory or at the holder’s option and would be at prescribed conversion rates.

Any debt securities issued under this prospectus will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities under the heading “Description of Debt Securities.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indenture(s) and any supplemental indentures that contain the terms of the debt securities. We have filed a form of indenture as an exhibit to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or incorporate by reference from reports that we file with the SEC, supplemental indentures and forms of debt securities containing the terms of the debt securities being offered.

Warrants. We may issue warrants for the purchase of common shares, preferred shares or debt securities, in one or more series, from time to time. We may issue warrants independently or in combination with common shares, preferred shares or debt securities. In this prospectus, we have summarized certain general features of the warrants under the heading “Description of Warrants.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. We have filed forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants that we may offer as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or incorporate by reference from reports that we file with the SEC, the form of warrant or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Any warrants issued under this prospectus may be evidenced by warrant certificates. Warrants may be issued under a warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our most recent Annual Report on Form 10-K, as updated by our subsequent quarterly reports on Form 10-Q and other reports and documents that are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, results of operations, financial condition and cash flows, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, and the documents incorporated in this prospectus by reference, contain forward-looking statements. These statements are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and our most recent subsequent Quarterly Report on Form 10-Q, as well as any amendments thereto, filed with the SEC.

In some cases, you can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "design," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "predict," "positioned," "potential," "seek," "should," "target," "will," "would" or the negative or plural of those terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these statements.

Any statements in this prospectus, or incorporated herein by reference, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act of 1933, as amended ("Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended ("Exchange Act") these forward-looking statements include statements regarding:

- our plans to research, develop and commercialize our product candidates;
- the initiation, progress, success, cost and timing of our clinical trials and product development activities;
- the therapeutic potential of our product candidates, and the disease indications for which we intend to develop our product candidates;
- our ability and timing to advance our product candidates into, and to successfully initiate, conduct, enroll and complete, clinical trials;
- our ability to manufacture our product candidates for clinical development and, if approved, for commercialization, and the timing and costs of such manufacture;
- the performance of third parties in connection with the development and manufacture of our product candidates, including third parties conducting our clinical trials as well as third-party suppliers and manufacturers;
- the potential of our cell therapy platform, and our plans to apply our platform to research, develop and commercialize our product candidates;
- our ability to obtain funding for our operations, including funding necessary to initiate and complete clinical trials of our product candidates;
- the size and growth of the potential markets for our product candidates and our ability to serve those markets;
- the potential scope and value of our intellectual property rights;
- our ability, and the ability of our licensors, to obtain, maintain, defend and enforce intellectual property rights protecting our product candidates, and our ability to develop and commercialize our product candidates without infringing the proprietary rights of third parties;
- our ability to recruit and retain key personnel;
- the potential effects of the COVID-19 pandemic on our operations;
- our expected use of proceeds from any offering under this prospectus; and
- other risks and uncertainties, including those described in the "Risk Factors" section of the documents that are incorporated by reference into this prospectus.

You should refer to the "Risk Factors" section contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Except as described in any applicable prospectus supplement or in any free writing prospectuses that we may authorize to be provided to you in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered hereby, if any, for working capital and general corporate purposes, including research and development expenses and capital expenditures, which may include costs of funding future acquisitions or for any other purpose we describe in the applicable prospectus supplement. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus. Pending the use of net proceeds, we plan to invest the net proceeds in short-term interest-bearing investment-grade securities, certificates of deposit or government securities.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and certain provisions of: (i) our Restated Articles of Incorporation, as amended (as amended by the Certificate of Ownership, the "Articles"); (ii) our Amended and Restated Bylaws (the "Bylaws"); and (iii) applicable California law. This description is qualified in its entirety by, and should be read in conjunction with, the Articles and the Bylaws, each of which are filed as exhibits to the registration statement of which this prospectus is a part, and applicable California law.

Authorized Capital Stock

We are authorized to issue an aggregate of 252,000,000 shares of capital stock consisting of 250,000,000 common shares and 2,000,000 preferred shares.

Common Shares

Voting Rights

Each holder of common shares is entitled to one vote for each common share held on every matter properly submitted to the shareholders for their vote; provided that such holders may have cumulative voting rights in the election of directors if the candidates' names have been placed in nomination prior to commencement of the voting and the shareholder has given notice prior to commencement of the voting of the shareholder's intention to cumulate votes.

Dividend Rights

Subject to any preferential rights or preferences of preferred shares outstanding, if any, holders of the common shares are entitled to any dividend declared by our board of directors out of funds legally available for that purpose.

Liquidation Rights

Subject to any preferential rights or preferences of holders of preferred shares outstanding, if any, holders of the common shares are entitled to receive on a pro rata basis all of our remaining assets available for distribution to the holders of the common shares in the event of the liquidation, dissolution, or winding up of our operations.

No Preemptive or Similar Rights.

Holders of the common shares do not have any preemptive rights to become subscribers or purchasers of additional shares of any class of our capital stock. There are no redemption or sinking fund provisions applicable to the common shares.

Rights of Preferred Shares May be Senior to Common Shares.

Any series of preferred shares authorized by our board of directors may be senior to and have greater rights and preferences than the common shares and may have restrictions on our repurchase or redemption of shares.

Preferred Shares

Our board of directors is authorized, without further action of the shareholders, to issue up to 2,000,000 preferred shares in one or more series, at any time, and to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon the preferred shares as a class or upon any wholly unissued series of preferred shares. Our board of directors may increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series of preferred shares subsequent to the issue of shares of that series.

Our board of directors may authorize the issuance of preferred shares with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common shares. The issuance of preferred shares, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control that may otherwise benefit holders of our common shares and may adversely affect the market price of our common shares and the voting and other rights of the holders of common shares.

Anti-takeover Provisions of the Articles, Bylaws and California Law

Provisions of the Articles and Bylaws may delay or discourage transactions involving an actual or potential change in control of our company or change in its management, including transactions in which shareholders might otherwise receive a premium for their shares, or transactions that its shareholders might otherwise deem to be in their best interests. Among other things, the Articles and Bylaws:

- provide that, except for a vacancy caused by the removal of a director by the shareholders or by court order, a vacancy on the board of directors may be filled by approval of a majority of the remaining directors, though less than a quorum, or by a sole remaining director;
- provide that shareholders seeking to present proposals before a meeting of shareholders or to nominate candidates for election as directors at a meeting of shareholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of such notice;
- authorize the board of directors to issue preferred shares in series and to fix rights and preferences of the series (including, among other things, whether, and to what extent, the shares of any series will have voting rights and the extent of the preferences of the shares of any series with respect to dividends and other matters); and
- provide that, at a meeting of shareholders at which directors are to be elected, no shareholder shall be entitled to cumulate votes unless the candidates' names have been placed in nomination prior to commencement of the voting and the shareholder has given notice prior to commencement of the voting of the shareholder's intention to cumulate vote.

In addition, as a California corporation, we are subject to the provisions of Section 1203 of the California General Corporation Law, which requires us to provide a fairness opinion to our shareholders in connection with their consideration of any proposed "interested party" reorganization transaction.

Listing

Our common shares are listed on the NYSE American and on the TASE under the symbol "LCTX."

Transfer Agent and Registrar

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

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended (“Trust Indenture Act”). We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” (“OID”), for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

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

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;

- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common shares or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of our common shares or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than any subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request;
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;
- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale;”

- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under “Description of Debt Securities—General” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;

- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company (“DTC”), or another depository named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

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

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement and in any related free writing prospectus that we may authorize to be distributed to you, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common shares, preferred shares or debt securities and may be issued in one or more series. Warrants may be offered independently or in combination with common shares, preferred shares 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.

We have filed forms of the warrant agreements and forms of warrant certificates listing the terms of the warrants that may be offered as exhibits to the registration statement of which this prospectus is a part. 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 or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, as well as 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 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 prospectus, and the complete form of warrant or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements, that list the terms of the warrants.

General

In the applicable prospectus supplement, we will describe the terms of the series of warrants being offered, including, to the extent applicable:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable on exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased on such exercise;
- in the case of warrants to purchase common shares or preferred shares, the number of common shares or preferred shares, as the case may be, purchasable on the exercise of one warrant and the price at which these shares may be purchased on 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 on exercise of the warrants;
- the dates 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 material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable on 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 on such exercise, including:

- in the case of warrants to purchase common shares or preferred shares, the right to receive dividends, if any, or payments on our liquidation, dissolution or winding up or to exercise voting rights, if any; or
- 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 on exercise or to enforce covenants in the applicable indenture.

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 listed 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 specified time on the expiration date that we list in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

On 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 on 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 provide otherwise in the applicable prospectus supplement, the warrants and 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 on 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 on exercise of, its warrants.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depository maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depository or its participants. Consequently, for global securities, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depository will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depository will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the legal holders contact the indirect holders is up to the legal holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depository's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depository. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, the DTC, New York, New York, will be the depository for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, unless special termination situations arise. We describe those situations below under "—Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers.

We do not recognize an indirect holder as a holder of securities and instead deal only with the depository that holds the global security.

If securities are issued only as global securities, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in the global security, nor will we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that the DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

- Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:
- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

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

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

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of the NYSE American or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on the NYSE American or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common shares, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short covering transactions and penalty bids. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on the NYSE American may engage in passive market making transactions in the securities on the NYSE American in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon by Cooley LLP, San Diego, California. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

OUM & Co. LLP, our independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020 as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on OUM & Co. LLP's reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including our company. The address of the SEC website is www.sec.gov.

We maintain a website at www.lineagecell.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, 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 part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K) that we have filed with the SEC (File No. 001-12830):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2020, filed with the SEC on March 11, 2021;
- our Current Reports on Form 8-K filed with the SEC on [January 15, 2021](#) and [March 5, 2021](#); and
- the description of our common shares contained in our Registration Statement on [Form 8-A](#), filed with SEC on October 26, 2009, including any amendment or report filed for the purpose of updating such description

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items, and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of all offerings covered by this prospectus. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Lineage Cell Therapeutics, Inc., Attn: Secretary, 2173 Salk Avenue, Suite 200, Carlsbad, California 92008; telephone: (442) 287-8990.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.



13,461,540 Common Shares

PROSPECTUS SUPPLEMENT

The date of this prospectus supplement is February 6, 2024
