

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM S-3**  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**Lineage Cell Therapeutics, Inc.**  
(Exact name of registrant as specified in its charter)

**California**  
(State or other jurisdiction of  
incorporation or organization)

**94-3127919**  
(I.R.S. Employer  
Identification Number)

2173 Salk Avenue, Suite 200  
Carlsbad, California 92008

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Brian M. Culley**  
Chief Executive Officer  
Lineage Cell Therapeutics, Inc.  
2173 Salk Avenue, Suite 200  
Carlsbad, CA 92008  
(442) 287-8990

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copies to:*

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Carlsbad, CA 92008  
(442) 287-8990

**From time to time after the effective date of this Registration Statement.**  
(Approximate date of commencement of proposed sale to public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer   
Non-accelerated filer

Accelerated filer   
Smaller reporting company   
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

#### CALCULATION OF REGISTRATION FEE

<b>Title of Each Class of Securities to be Registered</b>	<b>Amount to be Registered<sup>(1)</sup></b>	<b>Proposed Maximum Offering Price per Unit<sup>(2)</sup></b>	<b>Proposed Maximum Aggregate Offering Price<sup>(2)</sup></b>	<b>Amount of Registration Fee</b>
Common Shares, no par value	251,835	\$ 2.305	\$ 580,480	\$ 64

(1) There is being registered hereunder 251,835 common shares of the registrant held by the selling shareholder named in this registration statement. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the common shares being registered hereunder include such indeterminate number of common shares as may be issuable with respect to the common shares being registered hereunder as a result of share splits, share dividends or similar transactions.

(2) Calculated pursuant to Rule 457(c) under the Securities Act, based on the average of the high and low prices per common share reported on the NYSE American on March 10, 2021.

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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**The information in this prospectus is not complete and may be changed. The selling shareholder may not sell these securities or accept an offer to buy these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting offers to buy these securities in any state where such offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED MARCH 11, 2021**

**PROSPECTUS**



**251,835 Common Shares**

This prospectus covers the offer and resale by the selling shareholder identified in this prospectus of up to an aggregate of 251,835 common shares that we issued to the selling shareholder in April 2019 (the “Share Issuance”) to settle warrants to purchase common stock of Asterias Biotherapeutics, Inc. (“Asterias”) held by the selling shareholder prior to our acquisition of Asterias on March 8, 2019 (the “Asterias Acquisition”).

We are not selling any common shares under this prospectus and will not receive any proceeds from the sale by the selling shareholder of such shares.

The registration of our common shares covered by this prospectus does not mean that the selling shareholder will offer or sell any of the common shares covered by this prospectus. Sales of the shares by the selling shareholder may occur at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices. The selling shareholder may sell shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling shareholder, the purchasers of the shares, or both.

We are paying the cost of registering the common shares covered by this prospectus as well as various related expenses. The selling shareholder is responsible for all selling commissions, transfer taxes and other costs related to the offer and sale of their shares.

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.

**Investing in our common shares involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” as described on page 3 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           , 2021.

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## ABOUT THIS PROSPECTUS

You should read this prospectus, any applicable prospectus supplement and the documents incorporated by reference in this prospectus 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 entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

You should rely only on the information contained in or incorporated by reference in this prospectus (as supplemented or amended). We and the selling stockholder have not authorized anyone to provide you with different information. This prospectus may be used only in jurisdictions where offers and sales of these securities are permitted. The information contained in this prospectus, as well as the information filed previously with the Securities and Exchange Commission (“SEC”), and incorporated by reference in this prospectus, is accurate only as of the date of the document containing the information, regardless of the time of delivery of this prospectus or any applicable prospectus supplement or any sale of our common stock.

## 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 common shares 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.

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](http://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 ™, 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.

### **Share Issuance**

In May 2016, in connection with a common stock offering, Asterias issued warrants to purchase 2,959,559 shares of its common stock (the “Asterias Warrants”) with an exercise price of \$4.37 per share. In connection with the Asterias Acquisition, we assumed the then outstanding Asterias Warrants. At the time of the Asterias Acquisition, the selling shareholder named in this prospectus held Asterias Warrants to purchase 1,029,412 shares of Asterias common stock. In April 2019, the selling shareholder notified us that it would like to settle its Asterias Warrants in exchange for our common shares, in lieu of cash equal to the fair value of its Asterias Warrants, in accordance with the terms of the Asterias Warrants. We issued 251,835 common shares to the selling shareholder, which amount was equal to the fair value of the selling shareholder’s Asterias Warrants divided by the three-day volume weighted average price of our common shares.

## The Offering

Common shares offered by selling shareholder	251,835 shares.
Terms of the offering	The selling shareholder will determine when and how it will sell the common shares offered in this prospectus, as described in “Plan of Distribution.”
Use of proceeds	We will not receive any proceeds from the sale of the common shares covered by this prospectus.
Risk factors	See “Risk Factors” on page 3 for a discussion of factors you should carefully consider before deciding to invest in our common shares.
NYSE American Symbol	“LCTX”

The selling shareholder named in this prospectus may offer and sell up to 251,835 common shares. Our common shares are currently listed on NYSE American under the symbol “LCTX.” We will not receive any of the proceeds of sales by the selling shareholder of any of the common shares covered by this prospectus. When we refer to the selling shareholder in this prospectus, we are referring to the selling shareholder identified in this prospectus and, as applicable, its permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

## 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; 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 not receive any of the proceeds from the sale or other disposition of our common shares held by the selling shareholder pursuant to this prospectus. We will bear the out-of-pocket costs, expenses and fees incurred in connection with the registration of our common shares to be sold by the selling shareholder pursuant to this prospectus. Other than registration expenses, the selling shareholder will bear underwriting discounts, commissions, placement agent fees or other similar expenses payable with respect to sales of our common shares.

## SELLING SHAREHOLDER

The following table and accompanying footnotes, which were prepared based on information furnished to us by or on behalf of the selling shareholder and information filed with the SEC, sets forth information regarding the beneficial ownership of our common shares owned by the selling shareholder as of March 5, 2021. Beneficial ownership is determined in accordance with rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under the rules of the SEC, a person is deemed to be a “beneficial owner” of a security if that person has or shares “voting power,” which includes the power to vote or to direct the voting of such security, or “investment power,” which includes the power to dispose of or to direct the disposition of such security. A person is also deemed to be a beneficial owner of a security if that person has the right to acquire beneficial ownership of such security within 60 days.

In May 2016, in connection with a common stock offering, Asterias issued warrants to purchase 2,959,559 shares of its common stock (the “Asterias Warrants”) with an exercise price of \$4.37 per share. In connection with the Asterias Acquisition, we assumed the then outstanding Asterias Warrants. At the time of the Asterias Acquisition, the selling shareholder named in this prospectus held Asterias Warrants to purchase 1,029,412 shares of Asterias common stock. In April 2019, the selling shareholder notified us that it would like to settle its Asterias Warrants in exchange for our common shares, in lieu of cash equal to the fair value of its Asterias Warrants, in accordance with the terms of the Asterias Warrants. We issued 251,835 common shares to the selling shareholder, which amount was equal to the fair value of the selling shareholder’s Asterias Warrants divided by the three-day volume weighted average price of our common shares.

The percentage of shares beneficially owned is based on 161,637,890 common shares issued and outstanding as of March 5, 2021. Common shares that the selling shareholder has the right to acquire within 60 days of March 5, 2021 are deemed outstanding for purposes of computing the percentage ownership of such selling shareholder’s holdings. The number of shares and percentage of our outstanding common shares to be beneficially owned after completion of this offering assumes that the selling shareholder will sell all the common shares offered hereby. The selling shareholder may offer all, some, or none of those common shares. The selling shareholder may have sold, transferred, otherwise disposed of or purchased, or may sell, transfer, otherwise dispose of or purchase, at any time and from time to time, our common shares in transactions exempt from the registration requirements of the Securities Act, or in the open market after the date on which it provided the information set forth in the table below.

Neal Bradsher, who may be deemed a beneficial owner of the common shares directly owned by the selling shareholder, is a member of our board of directors.

Information concerning the selling shareholder may change over time. Any changed information will be set forth in amendments to the registration statement of which this prospectus forms a part or in supplements to this prospectus, if and when necessary or as otherwise required by law.

<b>Selling Shareholder</b>	<b>Shares Beneficially Owned Prior to Offering</b>		<b>Shares being Offered</b>	<b>Share Beneficially Owned After Offering</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Number</b>	<b>Percent</b>
Broadwood Partners, L.P. <sup>(1)</sup>	34,207,167	21.1%	251,835	33,955,332	21.0%

(1) Includes: (i) 34,005,379 shares owned by Broadwood Partners, L.P.; (ii) 62,908 shares owned by Neal C. Bradsher; and (iii) 138,880 shares that may be acquired by Mr. Bradsher upon the exercise of options that are presently exercisable or may become exercisable within 60 days of March 5, 2021. Broadwood Capital, Inc. is the general partner of Broadwood Partners, L.P., and Mr. Bradsher is the President of Broadwood Capital, Inc. Mr. Bradsher and Broadwood Capital, Inc. may be deemed to beneficially own the shares that Broadwood Partners, L.P. owns. Mr. Bradsher is a director of Lineage. Mr. Bradsher disclaims beneficial ownership of the shares held by Broadwood Partners, L.P. except to the extent of his pecuniary interest therein. The address of the foregoing entities and Mr. Bradsher is c/o Broadwood Capital, Inc., 142 West 57<sup>th</sup> Street, 11th Floor, New York, New York 10019.

## PLAN OF DISTRIBUTION

The selling shareholder and any of its pledgees, donees, transferees, assignees and successors-in-interest may, from time to time, sell any or all of the common shares on the NYSE American or any other securities exchange, market or trading facility on which our common shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling shareholder may use any one or more of the following methods when selling common shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- sales by a broker-dealer of a specified number of such shares at a stipulated price per share, pursuant to agreements between the selling shareholder and broker-dealer;
- block trades in which the broker-dealer will attempt to sell the common shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling shareholder may also sell the common shares under Rule 144 under the Securities Act, if available, rather than pursuant to the registration statement of which this prospectus forms a part.

Broker-dealers engaged by the selling shareholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling shareholder (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission, and in the case of a principal transaction a markup or markdown, in each case in compliance with Rule 2121 of the Financial Industry Regulatory Authority, Inc.

In connection with any permitted short sale, loan, pledge, option, derivative or hedging transaction, the selling shareholder may enter into agreements with broker-dealers or other financial institution that in turn engage in short sales of our common shares in the course of hedging the positions they assume. If any common shares are delivered to a broker-dealer or other financial institution in connection with any such transaction, the broker-dealer or other financial institution may resell the common shares pursuant to this prospectus (as supplemented or amended to reflect such transaction, including, if necessary, updates to the list of selling shareholders to include such broker-dealer or financial institution).

The selling shareholder may also transfer and donate the common shares in other circumstances in which case the transferees, donees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus.

The selling shareholder and any brokers, dealers or agents that are involved in selling the common shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such brokers, dealers or agents and any profit on the resale of any common shares purchased by them may be deemed to be underwriting compensation under the Securities Act. The selling shareholder has advised us that it does not have any written or oral agreement, understanding or arrangement, directly or indirectly, with any broker, dealer, agent or other person regarding the sale of the common shares. There are no underwriters or coordinating brokers acting in connection with the proposed sale of the common shares by the selling shareholder.

Because the selling shareholder may be deemed to be an “underwriter” within the meaning of the Securities Act, it may be subject to the requirements of the Securities Act to deliver this prospectus to each purchaser at or prior to the time of the sale. We have informed the selling shareholder of this requirement, and we will make copies of this prospectus available to it.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the common shares may not simultaneously engage in market making activities with respect to our common shares for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling shareholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of our common shares by the selling shareholder or any other person.

We will pay certain fees and expenses incurred by us incident to the registration of the common shares, including SEC filing fees, fees and expenses of compliance with securities laws, and various related expenses. The selling shareholder is responsible for all discounts, selling commissions and other costs related to its offer and sale of the common shares.

## 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](http://www.sec.gov).

We maintain a website at [www.lineagecell.com](http://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.

## PART II INFORMATION NOT REQUIRED IN PROSPECTUS

### **Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the offering of the securities being registered. All the amounts shown are estimates, except for the Securities and Exchange Commission ("SEC") registration fee.

SEC registration fee	\$	64
Accounting fees and expenses	\$	10,000
Legal fees and expenses	\$	25,000
Transfer agent, printing and miscellaneous expenses	\$	2,000
Total	\$	37,064

### **Item 15. Indemnification of Directors and Officers.**

Section 317 of the California Corporations Code ("California Code"), provides for the indemnification of directors, officers, employees, and other agents of corporations under certain conditions subject to certain limitations. In addition, Section 204(a)(10) of the California Code permits a corporation to provide, in its articles of incorporation, that directors shall not have liability to the corporation or its shareholders for monetary damages for breach of fiduciary duty, subject to certain prescribed exceptions. Our Restated Articles of Incorporation, as amended to date, contains provisions for the indemnification of directors, officers, employees and other agents within the limitations permitted by Section 317 and for the limitation on the personal liability of directors permitted by Section 204(b)(10), subject to the exceptions required thereby.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended ("Securities Act"), may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

**Item 16. Exhibits.**

(a) Exhibits

Exhibit Number	Description	Incorporation by Reference			
		Exhibit Number	Filing	Filing Date	File No.
3.1	<a href="#">Restated Articles of Incorporation, as amended</a>	3.1	10-Q	May 10, 2018	001-12830
3.2	<a href="#">Certificate of Ownership</a>	3.1	8-K	August 12, 2019	001-12830
3.3	<a href="#">Amended and Restated Bylaws</a>	3.2	8-K	August 12, 2019	001-12830
4.1	Specimen of Common Share Certificate		S-1	December 18, 1991	033-44549
5.1	<a href="#">Opinion of Cooley LLP</a>				
23.1	<a href="#">Consent of OUM &amp; Co. LLP</a>				
23.2	<a href="#">Consent of Cooley LLP (included in Exhibit 5.1)</a>				
24.1	<a href="#">Power of Attorney is included on signature page hereto</a>				

**Item 17. Undertakings**

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however*, that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are incorporated by reference in this registration statement or are contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Carlsbad, California, on March 11, 2021.

LINEAGE CELL THERAPEUTICS, INC.

By: /s/ Brian M. Culley  
Brian M. Culley  
Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Brian M. Culley and Chase C. Leavitt, and each of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or name, place and stead, in any and all capacities, to: (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto; (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith; (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended; and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his or her substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Brian M. Culley</u> BRIAN M. CULLEY	Chief Executive Officer and Director (Principal Executive and Financial Officer)	March 11, 2021
<u>/s/ Alexandra Hernandez</u> ALEXANDRA HERNANDEZ	Senior Director, Finance (Principal Accounting Officer)	March 11, 2021
<u>/s/ Deborah Andrews</u> DEBORAH ANDREWS	Director	March 11, 2021
<u>/s/ Don M. Bailey</u> DON M. BAILEY	Director	March 11, 2021
<u>/s/ Neal C. Bradsher</u> NEAL C. BRADSHER	Director	March 11, 2021
<u>/s/ Alfred D. Kingsley</u> ALFRED D. KINGSLEY	Director	March 11, 2021
<u>/s/ Michael H. Mulroy</u> MICHAEL H. MULROY	Director	March 11, 2021
<u>/s/ Angus C. Russell</u> ANGUS C. RUSSELL	Director	March 11, 2021





Steven M. Przesmicki  
+1 858 550 6070  
przes@cooley.com

March 11, 2021

Lineage Cell Therapeutics, Inc.  
2173 Salk Avenue, Suite 200  
Carlsbad, California 92008

Ladies and Gentlemen:

We have acted as counsel to Lineage Cell Therapeutics, Inc., a California corporation (the "**Company**"), in connection with the Registration Statement on Form S-3 (the "**Registration Statement**") filed by the Company under the Securities Act of 1933, as amended, covering the resale by the selling stockholder named in the Registration Statement of up to 251,835 common shares, no par value, of the Company (the "**Shares**").

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectus included therein, the Company's Restated Articles of Incorporation, as amended, and Amended and Restated Bylaws, each as currently in effect, and such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials and the due execution and delivery of documents by all persons other than the Company where execution and delivery are prerequisites to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the laws of the State of California. We express no opinion as to whether any particular laws other than those identified above are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares have been validly issued and are fully paid, and nonassessable.

We hereby consent to the reference to our firm under the caption "Legal Matters" in the prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Steven M. Przesmicki  
Steven M. Przesmicki

Cooley LLP 4401 Eastgate Mall San Diego, CA 92121  
t: (858) 550-6000 f: (858) 550-6420 cooley.com

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference, in the Prospectus constituting a part of this Registration Statement on Form S-3 of Lineage Cell Therapeutics, Inc. of our report dated March 11, 2021 relating to the consolidated financial statements of Lineage Cell Therapeutics, Inc. and Subsidiaries appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2020.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

*/s/ OUM & CO. LLP*

San Francisco, California

March 11, 2021

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