UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 23, 2021

Lineage Cell Therapeutics, Inc.

(Exact name of registrant as specified in charter)

California (State or other jurisdiction

of incorporation)

001-12830 (Commission File Number) **94-3127919** (IRS Employer Identification No.)

2173 Salk Avenue, Suite 200 Carlsbad, California (Address of principal executive offices)

92008 (Zip Code)

(442) 287-8990

Registrant's telephone number, including area code

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common shares, no par value	LCTX	NYSE American

Indicate by check mark whether the registrant is an emerging growth company as defined in as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company \Box

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 13(a) of the Exchange Act.

On March 23, 2021, Lineage Cell Therapeutics, Inc. ("*Lineage*") announced interim results from its ongoing Phase 1/2a study of OpRegen®. The study enrolled 24 patients, including 12 patients treated in Cohort 4, which feature less advanced disease, better baseline visual acuity, and smaller areas of geographic atrophy ("*GA*"). Overall, nine of 12 Cohort 4 patients' treated eyes were at or above baseline visual acuity at their last assessment, based on per protocol scheduled visits, ranging from three months to more than two years post-OpRegen transplant. Improvements in best corrected visual acuity ("*BCVA*") reached up to 19 additional letters on an EDTRS chart. In contrast, nine of these 12 patients' untreated eyes were below baseline entry values at the same time points. Among the newly reported data, three of the more recently treated Cohort 4 patients have exhibited marked improvements in BCVA ranging from seven to 16 additional letters at their last scheduled assessments of at least 4.5 months. Two additional Cohort 4 patients remained within two letters of their baseline values (one each above and below). One patient measured seven letters below baseline.

Previously reported structural improvements in the retina and decreases in drusen density have continued with evidence of durable engraftment of OpRegen cells in some treated patients, now extending to more than five years in the earliest treated patients. A trend towards slower GA progression in treated compared to untreated eyes also continued, although significant changes in GA growth over a three-month period following treatment are not expected. Overall, OpRegen has been well tolerated with no unexpected adverse events or serious adverse events.

As part of an ongoing effort to administer the minimally effective dose and duration of immunosuppression, reflecting the COVID pandemic and age of typical AMD patients while ensuring the survival of OpRegen cells, no immunosuppression was utilized beyond the perioperative period of up to three months in Cohort 4 patients. Notably, the one OpRegen patient who had received a modified immunosuppressive regimen at baseline which included no tacrolimus and only mycophenolate mofetil, does not show any signs of acute or delayed inflammation or rejection of OpRegen cells. One other patient was diagnosed with COVID shortly after treatment with OpRegen and all immunosuppression was halted and then reinstated once the patient was asymptomatic. This second patient similarly showed no signs of acute or delayed inflammation or rejection of OpRegen cells. Other than the reduced regiments described above, immunosuppressants have been discontinued as scheduled, typically within 90 days post-operatively, and no cases of acute or delayed rejection or inflammation due to OpRegen have been reported.

Lineage cautions you that all statements, other than statements of historical facts, contained in this Form 8-K are forward-looking statements. Forward-looking statements, in some cases, can be identified by terms such as "believe," "may," "will," "estimate," "continue," "anticipate," "design," "intend," "expect," "could," "plan," "potential," "predict," "seek," "should," "would," "contemplate," project," "target," "tend to," or the negative version of these words and similar expressions. Such statements include, but are not limited to, statements relating to the expected clinical outcomes of dry AMD patients with GA and the expected timing when indications of retinal and reductions in size and expansion of the areas of GA may become apparent. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause Lineage's actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by the forward-looking statements in this Form 8-K, including risks and uncertainties inherent in Lineage's business and other risks in Lineage's filings with the Securities and Exchange Commission ("*SEC*"). Lineage's forward-looking statements are based upon its current expectations and involve assumptions that may never materialize or may prove to be incorrect. All forward-looking statements are expressly qualified in their entirety by these cautionary statements. Further information regarding these and other risks is included under the heading "Risk Factors" in Lineage's periodic reports with the SEC, including Lineage's most recent Annual Report on Form 10-K filed with the SEC and its other reports, which are available from the SEC's website. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they were made, except as required by law.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Lineage Cell Therapeutics, Inc.

Date: March 23, 2021

By: /s/ Brian M. Culley

Name: Brian M. Culley Title: Chief Executive Officer