UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of August 2019 Commission File Number 001-37846

CELLECT BIOTECHNOLOGY LTD.

(Translation of registrant's name into English)

23 Hata'as Street Kfar Saba, Israel 44425

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ⊠ Form 40-F □

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b)(7):

The first three paragraphs of the press release attached to this Form 6-K are incorporated by reference into the registrant's Registration Statements on Form S-8 (Registration No. 333-214817, 333-220015 and 333-225003) and on Form F-3 (Registration No. 333-229083, 333-219614 and 333-212432).

Attached hereto as Exhibit 99.1 and incorporated by reference herein is a press release issued by the Registrant entitled "Cellect Biotechnology Announces Positive Outcome from Safety Review Committee; Successfully Transplants 9th Clinical Trial Patient"

Exhibit

99.1 Press Release, dated August 12, 2019

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, thereunto duly authorized.

Cellect Biotechnology Ltd.

By: /s/ Eyal Leibovitz

Name: Eyal Leibovitz Title: Chief Financial Officer

Date: August 12, 2019

CELLECT

Cellect Biotechnology Announces Positive Outcome from Safety Review Committee; Successfully Transplants 9th Clinical Trial Patient

Solid progress as Washington University's Scientific Review Committee Approved the Company's First U.S. Study

TEL AVIV, Israel - August 12, 2019 – Following the one month data of the 9th patient, the Data and Safety Monitoring Board (DSMB) reviewed the safety data from Cellect Biotechnology Ltd.'s (Nasdaq: APOP) ongoing Phase 1/2 clinical study of ApoGraftTM, and announced that the DSMB unanimously recommended dose escalation and the continuation of enrollment for the fourth and final dose cohort in the study.

At one-month post transplantation, the patient has shown complete engraftment and has not demonstrated any procedure-related adverse effects. The Company currently expects to complete the patient recruitment by the end of 2019 and release data during the first half of 2020. The primary endpoint of the study is to evaluate the overall incidence, frequency, and severity of adverse events potentially related to ApoGraftTM at 180-days post-transplant.

In the U.S., the Company moved closer to the U.S. clinical trial as Washington University's Scientific Review Committee (SRC) approved the Company's study, with no comments. This, along with the other milestones that have been achieved by the Company over the past few months demonstrate solid progress and the Company is looking forward to working with its clinical partner and sharing further progress in the coming months.

"We are increasingly pleased with our global clinical progress," commented Dr. Shai Yarkoni, Chief Executive Officer. "In Israel, the DSMB's recommendation to proceed to the final cohort of our ApoGraft study without modification furthers us towards meeting our goal of enrolling the final three patients by the end of this year, which reaffirms the positive safety data to date. In the U.S., we are getting closer to realizing our plans to initiate our first trial in the U.S. as evidenced by the SRC's recent approval of our study."

About Cellect Biotechnology Ltd.

Cellect Biotechnology (NASDAQ: APOP) has developed a breakthrough technology, for the selection of stem cells from any given tissue, that aims to improve a variety of stem cell-based therapies.

The Company's technology is expected to provide researchers, clinical community and pharma companies with the tools to rapidly isolate stem cells in quantity and quality allowing stem cell-based treatments and procedures in a wide variety of applications in regenerative medicine. The Company's current clinical trial is aimed at bone marrow transplantations in cancer treatment.

Forward Looking Statements

This press release contains forward-looking statements about the Company's expectations, beliefs and intentions. Forward-looking statements can be identified by the use of forward-looking words such as "believe", "expect", "intend", "plan", "may", "should", "could", "might", "seek", "target", "will", "project", "forecast", "continue" or "anticipate" or their negatives or variations of these words or other comparable words or by the fact that these statements do not relate strictly to historical matters. For example, forward-looking statements are used in this press release when we discuss Cellect's expectations regarding timing of the upcoming clinical program objectives. These forward-looking statements and their implications are based on the current expectations of the management of the Company only and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. In addition, historical results or conclusions from scientific research and clinical studies do not guarantee that future results would suggest similar conclusions or that historical results referred to herein would be interpreted similarly in light of additional research or otherwise. The following factors, among others, could cause actual results to differ materially from those described in the forward-looking statements: the Company's history of losses and needs for additional capital to fund its operations and its inability to obtain additional capital on acceptable terms, or at all; the Company's ability to continue as a going concern; uncertainties of cash flows and inability to meet working capital needs; the Company's ability to obtain regulatory approvals; the Company's ability to obtain favorable pre-clinical and clinical trial results; the Company's technology may not be validated and its methods may not be accepted by the scientific community; difficulties enrolling patients in the Company's clinical trials; the ability to timely source adequate supply of FasL; risks resulting from unforeseen side effects; the Company's ability to establish and maintain strategic partnerships and other corporate collaborations; the scope of protection the Company is able to establish and maintain for intellectual property rights and its ability to operate its business without infringing the intellectual property rights of others; competitive companies, technologies and the Company's industry; unforeseen scientific difficulties may develop with the Company's technology; and the Company's ability to retain or attract key employees whose knowledge is essential to the development of its products; and the Company's ability to pursue any strategic transaction or that any transaction, if pursued, will be completed. Any forward-looking statement in this press release speaks only as of the date of this press release. The Company undertakes no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by any applicable securities laws. More detailed information about the risks and uncertainties affecting the Company is contained under the heading "Risk Factors" in Cellect Biotechnology Ltd.'s Annual Report on Form 20-F for the fiscal year ended December 31, 2018 filed with the U.S. Securities and Exchange Commission, or SEC, which is available on the SEC's website, www.sec.gov, and in the Company's periodic filings with the SEC.

Contact

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