UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 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 October 2020 (No. 4)

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 offices)

Indicate by check mark whether the registrant files or will file annual reports under cover 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 Regulation S-T Rule 101(b)(1):

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

The press release attached hereto as Exhibit 99.1 entitled "Cellect Biotechnology Commences Collaboration with XNK Therapeutics to Advance Novel NK Cell-Based Therapies; Adds Another Partner for its Functional Cell Selection Technology" is hereby incorporated by reference into the Registrant's Registration Statements on Form S-8 (Registration Nos. 333-214817, 333-220015, 333-225003 and 333-232230) and on Form F-3 (Registration Nos. 333-219614 and 333-229083).

Exhibit No.	Description
99.1	Cellect Biotechnology Commences Collaboration with XNK Therapeutics to Advance Novel NK Cell-Based Therapies; Adds Another Partner for its Functional Cell Selection Technology

SIGNATURE

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.

Date: October 29, 2020

CELLECT BIOTECHNOLOGY, LTD.

By: /s/ Eyal Leibovitz

Eyal Leibovitz Chief Financial Officer

CELLECT

Cellect Biotechnology Commences Collaboration with XNK Therapeutics to Advance Novel NK Cell-Based Therapies; Adds Another Partner for its Functional Cell Selection Technology

Tel Aviv, Israel October 29, 2020 – Adding to a growing roster of partners, Cellect Biotechnology Ltd. (NASDAQ: "APOP"), announced that it has entered into and commenced a collaborative development program with Sweden-based XNK Therapeutics, a pioneer in natural killer (NK) cell-based therapies.

"This latest agreement demonstrates the continued progress and operational momentum we are continuing to generate, further validating our strategic vision and potential revenue opportunities," commented Dr. Shai Yarkoni, Chief Executive Officer. "We join an already prestigious group of organizations that are currently collaborating with XNK Therapeutics, including the Karolinska Institute and the Royal Institute of Technology, and we are looking forward to fostering a long-term business and commercial collaboration. We remain focused on commercializing our functional cell selection technology so patients and markets can benefit from the proven safety profile and better outcomes of a broad range of cell and gene therapies."

Under the terms of the agreement, Cellect will help improve XNK Therapeutics' technology platform, for targeting cancer across a wide range of indications. Cellect expects to expand the business arrangement based on the outcomes of the ongoing studies at XNK Therapeutics. Cellect's functional cell selection technology has the potential to significantly improve the consistency and manufacturing efficiency in autologous as well as future allogeneic transplantation

XNK Therapeutics is expected to leverage Cellect's simple, safe and inexpensive process as part of its efforts to create the next generation version of its innovative therapy platform. "I am excited that we continue developing the next generation of XNK Therapeutics' technology platform and looking forward to the collaboration with Cellect" says Johan Liwing CEO of XNK Therapeutics.

About Cellect Biotechnology Ltd.

Cellect Biotechnology (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.

WWW.CELLECTBIO.COM

ENABLING STEM CELLS

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 commencement of its planned U.S. clinical trial and its plan to reduce operating costs. 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 preclinical 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; 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, 2019 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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