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 November 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 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):

EXPLANATORY NOTE

On November 6, 2019, Cellect Biotechnology Ltd. (the "Company"), announced it received an Investigational New Drug (IND) application from the U.S. Food and Drug Administration (FDA) for the commencement of a clinical trial to determine the safety and tolerability of its ApoGraft technology for haploidentical bone marrow transplantations. This development represents the Company's first-ever clinical trial approval in the U.S. using its ApoGraft stem cell selection technology, which is designed to significantly reduce acute graft-versus-host disease (aGVHD) following bone marrow transplantation.

The principal investigators for the clinical trial is Zhifu Xiang, M.D Ph.D, of Washington University School of Medicine in St. Louis, MO. He is an Associate Professor in the Division of Oncology's Bone Marrow Transplantation & Leukemia Section in the Department of Medicine. In addition, John Dipersio M.D, Ph.D, will act as co-principal investigator for the study. He is the chief of the Division of Oncology in the Department of Medicine at Washington University School of Medicine.

This Report on Form 6-K 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. 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 or maintain its current operations; uncertainties involving any strategic transaction the Company may decide to enter into as the result of its current efforts to explore new strategic alternatives; 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. 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 the Company'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.

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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.

CELLECT BIOTECHNOLOGY LTD.

By: /s/ Eyal Leibovitz

Eyal Leibovitz Chief Financial Officer

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Date: November 6, 2019