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: March 2017 (Report No. 6)

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 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 Registrant has posted an updated investor presentation to its website. A copy of the presentation is furnished with this Report of Foreign Private Issuer on Form 6-K as Exhibit 99.1 and is incorporated herein by reference.

Exhibit No.

99.1	Investor Presentation dated February, 2017 of Cellect Biotechnology Ltd.

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.
(Registrant)

By /s/ Eyal Leibovitz
Name: Eyal Leibovitz
Chief Financial Officer

Date: March 23, 2017


Enabling Stem Cells
Corporate Presentation 2017
CELLECT

Forward-Looking Statements

This presentation includes statements that are, or may be deemed, "forward-looking statements." In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "approximately," potential" or, in each case, their negative or other variations thereon or comparable terminology, although not all forward-looking statements contain these words. For example, forward-looking statements are used in this presentation when we discuss the timing of our clinical trials, the potential for the Company's technology to be used for various indications and applications, the potential for a shorter regulatory pathway for our products and an expedited pathway to market, our future plans which may include licensing deals with pharma, biotech and medtech companies and our expected timeline for regulatory approval of our products and studies. We have based these forward-looking statements on assumptions and assessments made by our management in light of their experience and their perception of historical trends, current conditions, expected future developments, and other factors they believe to be appropriate. Because such statements deal with future events and are based on our current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements could differ materially from those described in or implied by the statements in this presentation. In addition, historic results of scientific research do not guarantee that the conclusions of future research would not suggest different conclusions or that historic results referred to in this presentation would not be interpreted differently in light of additional research or otherwise. Important factors that could cause actual results, developments, and business decisions to differ materially from those anticipated in these forward-looking statements include, among other things: the overall global economic environment; the impact of competition and new technologies; general market, political, and economic conditions in the countries in which we operate; projected capital expenditures and liquidity; changes in our strategy; government regulations and approvals; and litigation and regulatory proceedings. By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, and healthcare, regulatory and scientific developments and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this presentation, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this presentation as a result of, among other factors, the factors referenced in the "Risk Factors" section of the prospectus contained in our Annual Report on Form 20-F for the fiscal year ended December 31, 2016 filed with the Securities and Exchange Commission on March 23rd, 2017 (the "Annual Report"). In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this presentation, they may not be predictive of results or developments in future periods. Any forward-looking statement that we make in this presentation speaks only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this presentation. You should read carefully the factors described in the "Risk Factors" section of the prospectus contained in the Prospectus to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements.

CELLECT

Investment Highlights

NASDAQ:APOP

- Cellect represents potentially transformational technology
- **Aims to provide unlimited quantity of Stem Cells for medical and research uses**
- More effective, safer and less costly transplant procedures using Cellect expected to drive initial commercial demand already in 2017
- The Cellect technology is aimed to be applied to numerous medical procedures
- Strategic collaboration with Entegris (Nasdaq: ENTG)
- Strong IP portfolio with 7 patent families
- Seasoned management team

- Solid balance sheet with $~8 MM of cash as of 12/31/2016; No loans
- Sufficient cash to support Phase I/II clinical trials
- Ordinary shares outstanding = 107 million
- Public on TASE since 2013; NASDAQ in 2016

Experienced Management Team / Advisors

Dr. Shai Yarkoni MD, PhD, Co- Founder & CEO
Senior executive in the biotechnology industry. Founder and CEO of Target-In Ltd., a cancer biotech therapeutics company. Founded and, until recently, managed Bio-Negev.

Eyal Leibovitz, CFO
More than 25 years of experience in senior management, finance, IR, M&A and business development in international companies. Mr. Leibovitz has served as CFO of Evogene, N-trig Ltd., Kamada Ltd., and New Media Communications.

Dr. Yaron Pereg PhD, Chief Development Officer
More then 10 years at technology and clinical development. Previously at Bioline Rx and Genentech.

BOARDs

Kasbian Nuriel Chirich, Co-Founder & Chairman of the Board
Businessman with extensive financial and business expertise. Leads several business ventures in East Africa and Israel and is the Honorary Consul of Tanzania in Israel.

Dr. Michael Berelowitz MD, Board Member
Previously Sr. VP, Head of Clinical Development and Medical Affairs, Pfizer Specialty Care Business Unit and Head of Global Medical at Pfizer.

Dr. Susan Alpert, Advisory Board
Previously Head of Medical Device division at the FDA and EVP of Regulatory Affairs at both Medtronic (NYSE:MDT) and CR Bard (NASDAQ:BCR).

Dr. Corey Cutler MD, Advisory Board
Head of bone marrow transplantation at world-renowned Dana-Farber cancer institute, an Associate Professor of Medicine at Harvard Medical School.

Regenerative Vs. Treatment medicine

The holy grail of medicine – **stop fixing** by chemicals, by poisons, radiation and massive surgery.

Instead – **replace** the damaged tissues and parts with Stem Cells technology.

The challenge

For Stem Cells to "work" there is a need for **Purity** and **Quantity** minima.

Nowadays, technology is **incapable of efficiently isolating stem cells to provide the necessary purity and quantity prerequisites**. For example, Bone Marrow transplants normally have a mix of both stem and mature cells which in most cases triggers an immune rejection response (GvHD) causing morbidity and even death.

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The need

To **enable** mass market Stem Cells treatments there is an urgent, unmet need for … **Stem Cells as raw material**.

There is a clear need for **enabling tools** for rapid and cost effective manufacturing of quality Stem Cells.

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Cellect Biotechnology Ltd.
has the enabling platform for
mass-production of
quality stem cells
CELLECT

Unattractive Trade-offs with Current Procedures

Bone Marrow Transplant

Donor Sample

> 50% GvHD Incidence if no Biomarker selection

Lab Procedure
Morphological Cell Selection

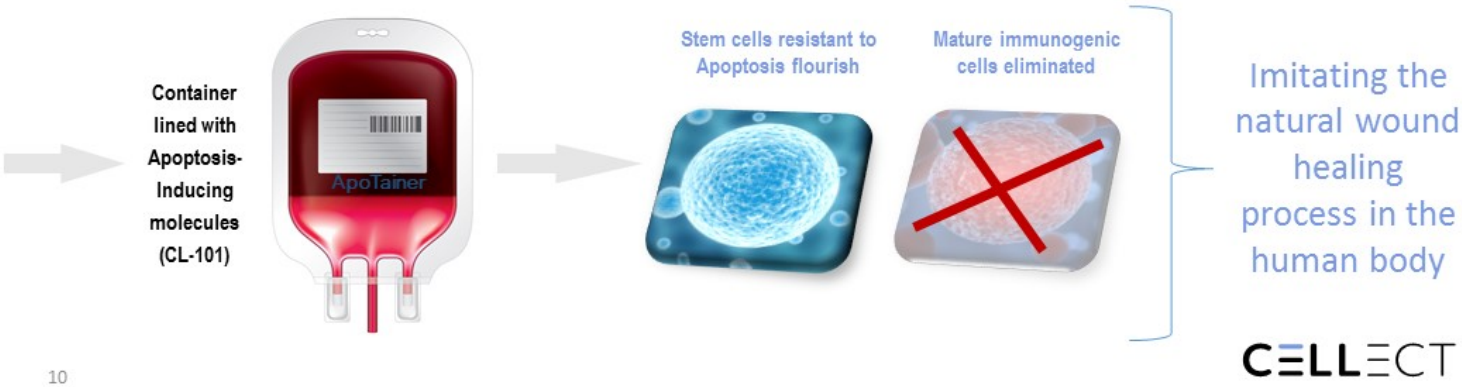
Biomarker selection reduces mass of stem cells

HSCT Transplant Trade-offs

Significant unmet medical need for a safe, yet efficient selection process

Our solution

- Cellect's procedure and containers create a closed hostile environment for rejection causing cells
- Container walls are coated with a protein that triggers cell death or apoptosis in mature cells (ApoTainer®)
- In contrast, stem cells flourish in environments where normal cells die
- ApoTainer output provides ample enriched stem cells immediately usable for any medical or research purpose
- Neutralizing harmful cells, significantly reducing medical complications



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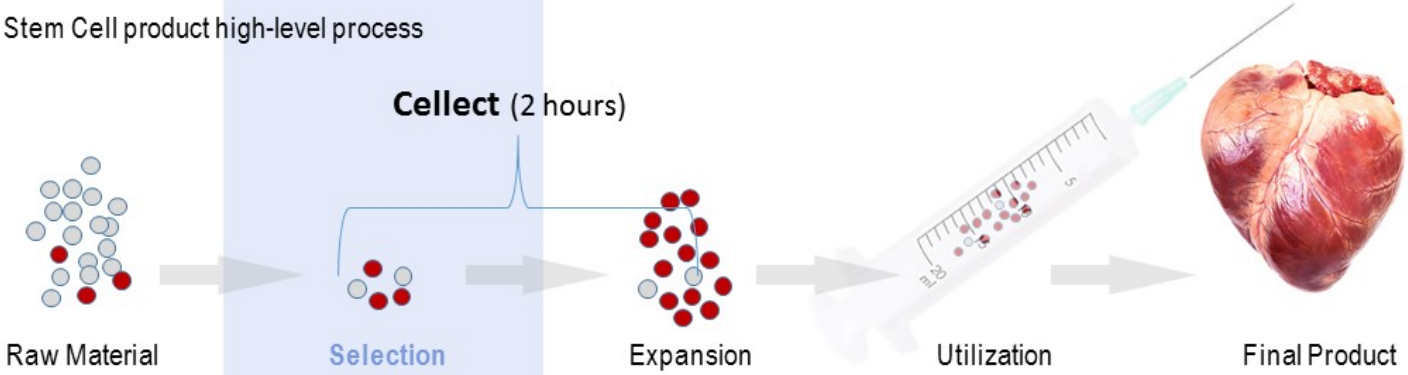
Cellect in the Value Chain

Stem Cell product high-level process



Currently days to weeks

Without Cellect's technology this stage becomes a major barrier for mass market Stem Cell therapies and research

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Cellect Vs. Alternatives

2 hours

Vs.

Days or Weeks

of complex lab work

	*Current Procedures	*Cellect
Risk of GvHD	> 50%	0 – 10%
Parallel Chemotherapy	Wide	Minimal
Rate of Infection	High	Low
Procedure and hospitalization	Months	Days
Procedure Cost	~ $70,000	*At least 50% less
Total cost of procedure	~ $300,000	*At least 50% less

** Company Estimates*

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Business strategy

- Cellect provides **enabling technology**
- **Aiming for strategic licensing deals (upfront, milestones & royalties) with the Pharma, Biotech and Medtech players**
- **Medical proof of concept through consumable medical devices**

- First mover advantage in a (Company estimated) multi-billion dollar market
- Building a brand of quality ("Cellected") to establish leadership position
- Have built a strong IP portfolio of 7 patent families
- Extensive business development activity for license deals based on clinical data in 2017

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Business Model

1. IP Licensing – Upfront fee + milestone payments
2. Royalties – Tiered on net sales per each customers' unit Product sold (TBD separately with each customer).

- Comparable companies with similar business models:
  - **Moderna**
  - **Abgenix**
  - **Medarex**

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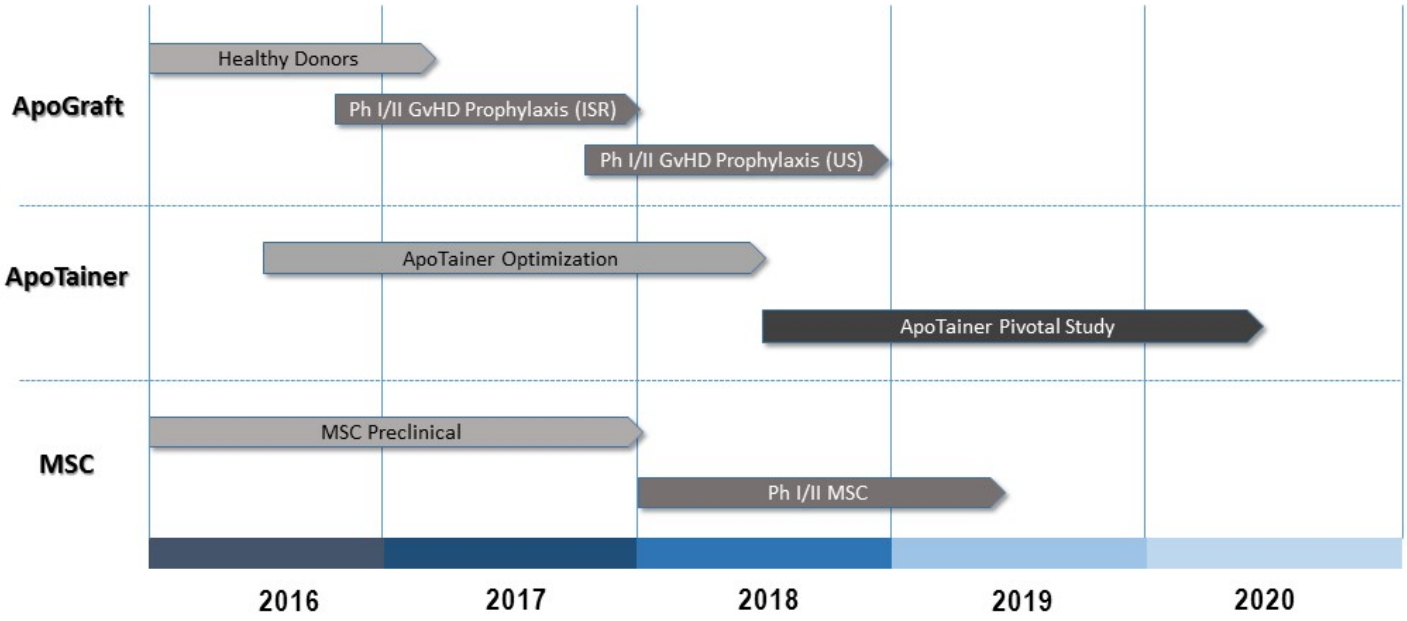
Clinical Program



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Phase I/II Clinical Trials

Location	Israel (Rambam Medical Center in cooperation with Shaarei Tzedek Hospital)
Trial	Hematopoietic stem cell transplantation (HSCT) to Leukemia patients Open Label
Trial group	12 patients
Trial Purpose	Safety and efficacy
Trial Length	12-18 months
Current Status	Agreement signed with Rambam Medical Center Ministry of Health & Helsinki committee approval granted Patient enrollment

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Strong IP Protection

7 families of global patent applications (2 already approved)

- Patent for the concept of using apoptosis-inducing agents for stem cells selection
- Patents for composition of matter of ApoTainers™
- Patents covering methods of use
- Patents covering method of manufacturing ApoTainers™
- Patent for Mesenchymal stem cells selection
- Strong IP validated by proof-of-concept studies

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Summary

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CELLECT
ENABLING STEM CELLS
BRAIN CHECK-UP
MEDICAL CARE
PATIENT PROFILE
PROGRAM DETAILS
NOTES
DOWNLOAD
Thank you.