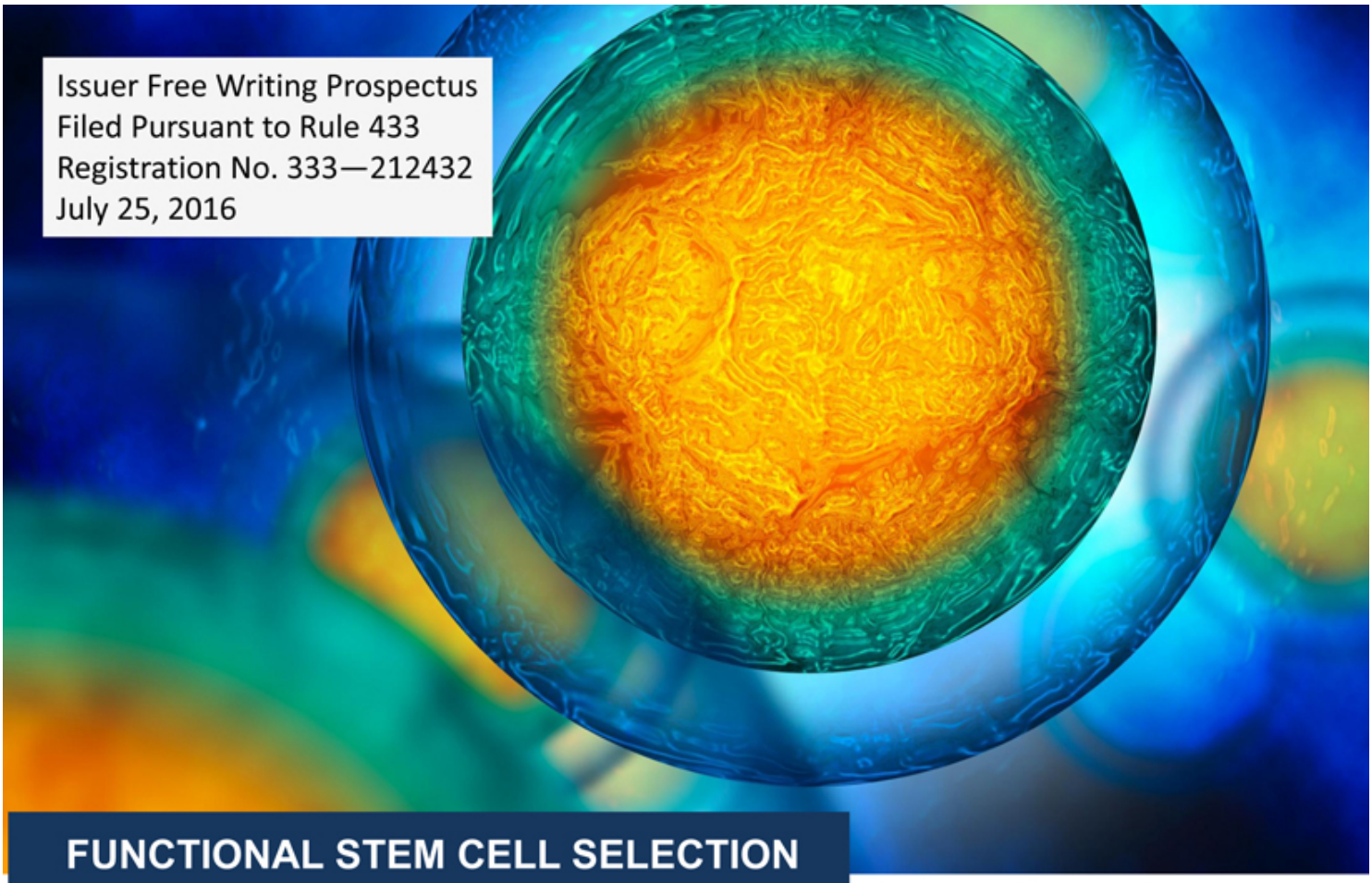
Issuer Free Writing Prospectus
Filed Pursuant to Rule 433
Registration No. 333—212432
July 25, 2016
FUNCTIONAL STEM CELL SELECTION
CELLECT BIOTECHNOLOGY LTD • CORPORATE PRESENTATION • JULY 25, 2016
CELLECT

Forward-Looking Statements

This presentation constitutes a "free writing prospectus," or a portion thereof, required to be filed by the Company with the Commission or retained by Cellect Biotechnology Ltd. ("we", "us" or "our") under Rule 433 to the Securities Act of 1933, as amended, or the Act.

All statements in this communication, other than those relating to historical facts, are "forward-looking statements." These forward-looking statements may include, but are not limited to, statements relating to our objectives, plans, and strategies; statements that contain projections of results of operations or of financial condition; statements relating to the research, development, and use of our platform technologies, technologies, products and product candidates; and all statements (other than statements of historical facts) that address activities, events, or developments that we intend, expect, project, believe, or anticipate will or may occur in the future. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties. 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. 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. 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 Amended Registration Statement on Form F-1 filed with the Securities and Exchange Commission on July 25, 2016 (the "Registration Statement"). 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. You should read carefully the factors described in the "Risk Factors" section of the prospectus contained in the Registration Statement to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements.

These statements are only current predictions and are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels of activity, performance, or achievements to be materially different from those anticipated by the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this prospectus. These forward-looking statements speak only as of the date of this presentation, and we assume no obligation to update or revise these forward-looking statements for any reason.

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Free Writing Prospectus Statement

This presentation highlights basic information about us and the offering to which this communication relates. Because it is a summary, it does not contain all of the information that you should consider before investing in our securities.

We have filed a registration statement (including a prospectus, which currently is in preliminary form) with the U.S. Securities and Exchange Commission, or the SEC, for the offering to which this presentation relates. The registration has not yet become effective. Before you invest, you should read the preliminary prospectus in the registration statement (including the risk factors described therein) and other documents we have filed with the SEC for more complete information about us and this offering.

You may access these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov.

The preliminary prospectus, dated July 25, 2016, is available on the SEC Web site at www.sec.gov/edgar.

Alternatively, we or any underwriter participating in the offering will arrange to send you the preliminary prospectus and, when available, the final prospectus and/or any supplements thereto if you contact H.C. Wainwright & Co., LLC, 430 Park Avenue, New York, New York 10022, via e-mail at placements@hcwco.com or via telephone at (212) 356-0530.

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Company Overview

Broad, Enabling Technology Platform

- Developing *Powered by Cellect* technology platform
  - Functionally selects stem cells from a mixed population of cells
  - Potential to improve safety and efficacy of multiple regenerative medicine stem cell therapies

HSCT – Initial Development

- First product under development is ApoTainer selection kit used in novel ApoGraft process for Hematopoietic Stem Cell Transplantation (HSCT)
  - Biotechnology product (CBER), with shorter medical device regulatory pathway (combination drug/device)
  - Extensive pre-clinical studies
  - Initial trial in healthy human volunteers completed
  - Phase 1/2 study initiated Q2 2016

Financial Summary

- Market cap: ~$35 MM (based on 6-week average price on TASE)
- Ordinary shares outstanding = 81.7 million
- Founded in 2011. Public on TASE since 2013

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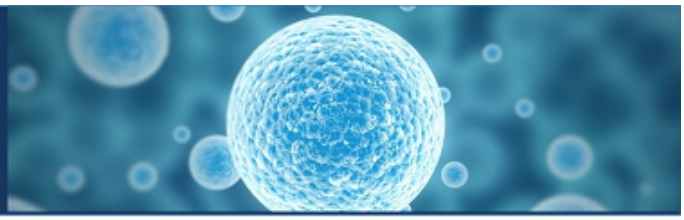
Investment Highlights



- *Powered by Cellect* platform represents potentially transformational technology
- Potential to dramatically improve major procedure (HSCT) with clear unmet medical need

  → Should reduce immune related adverse effects (Graft-versus-Host-Disease or GvHD), lower treatment costs and shorten length of hospitalization stay
- Improved safety of allogeneic HSCT procedures expected to drive initial commercial demand in Powered by Cellect platform
- Commercial strategy designed for fast time-to-market
- Technology validating collaboration with Entegris (NASDAQ: ENTG)
- Strong IP validated by proof-of-concept studies
- Cellect offers a proprietary enabling technology that has the potential to be integrated into treatment indications beyond our initial target, with significant multiple commercial applications

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Strong Management Team

Dr. Shai Yarkoni (MD, PhD), CEO, Co- Founder
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.

Ronen Twito (CPA), Deputy CEO & CFO
More than 15 years of CFO and executive management experience; BioBlast Pharma (NASDAQ:ORPN), XTL Biopharmaceuticals (NASDAQ:XLTB), LeadCom Integrated Solutions and Ernst & Young.

Nadir Askenasy (MD, PhD), Chief Technology Officer, Co-Founder
Leads research and clinical activity in cellular therapies. Has authored more than 100 peer-reviewed publications, serves on editorial boards of stem cell and medical journals, and has served on the Advisory Committee of medical institutes worldwide.

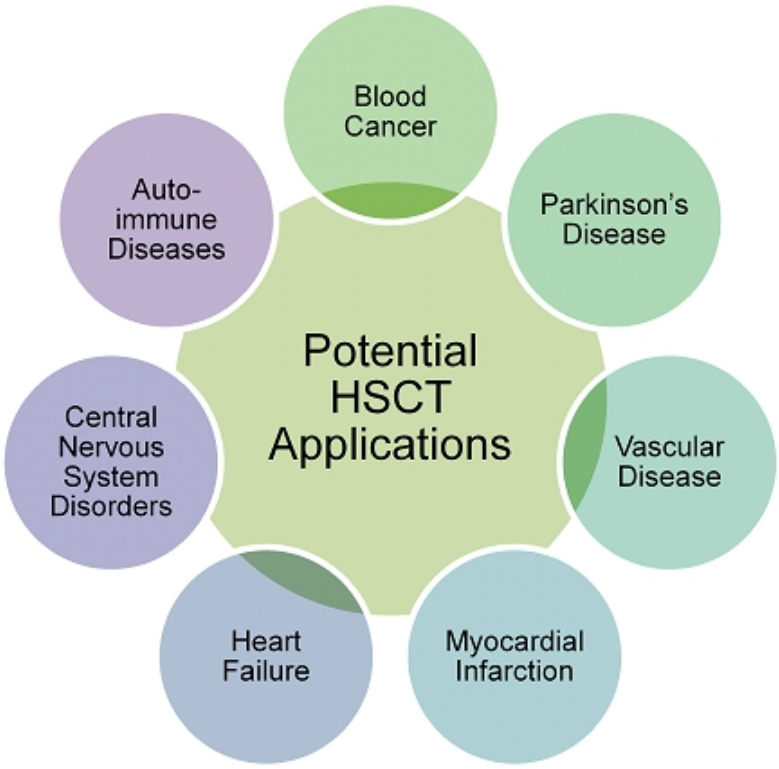
Kasbian Nuriel Chirich, Chairman, Co- Founder
Businessman with extensive financial and business expertise. Leads several ventures in East Africa and Israel and is the Honorary Consul of Tanzania in Israel.

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

Professor Dov Zipori, Advisory Board
Director of the Martin and Helen Kimmel Stem Cell Research Center at the Weizmann Institute. Research was the scientific basis of Pluristem (NASDAQ:PLX).

Hematopoietic Stem Cell Therapy (HSCT): The Promise

- Hematopoietic stem cells are blood and lymph-forming cells found in bone marrow and blood
- HSCT has been in use for over 50 years*
- HSCT replaces bone marrow that has been destroyed by disease and disorders
- Bone marrow is the primary source of stem cells for a wide variety of current and potential medical applications



*New England Journal of Medicine 157 (11): 491–496. doi:10.1056/NEJM195709122571102. PMID 13464965. (Year - 1957)

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HSCT: The Challenge

- HSCT is most commonly used cell based therapy, but is severely limited by very high mortality (up to 50%) and morbidity*
- Main complications of HSCT are Graft-versus-Host-Disease (GvHD) and other immune related complications**
- GvHD occurs when transplanted mature cells attack host cells
  - ❖ All immune-related complications are derived from current inability to separate stem cells (1:10,000) from mature immune cells ***

*http://www.cancernetwork.com/hematologic-malignancies/graft-versus-host-disease-complex-long-term-side-effect-hematopoietic-stem-cell

** Biology of blood and marrow transplantation 22:8,1344 2016

*** *Bone marrow transplantation* **13** (5): 597–611. PMID 8054913.

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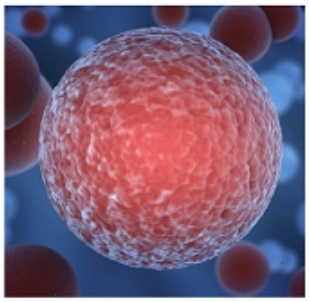
HSCT: What is Transplanted Today?

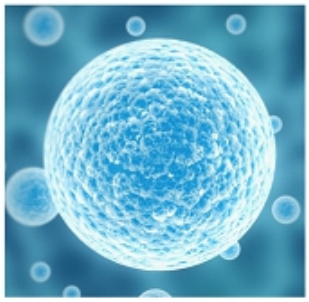
Large quantity of mature blood cells



Implant Rejection

Risk of GvHD

Small quantity of stem cells



New immune system reconstituted in recipient

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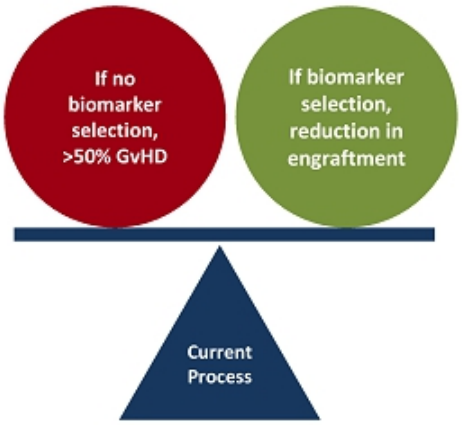
Trade-Offs With Current Process

- Lab procedure aims to lower GvHD
- Procedure is complex, inefficient and expensive
- Significant unmet medical need for a safe, yet efficient selection process
- Trade-off for GvHD reduction is reduced engraftment and tumor recurrence



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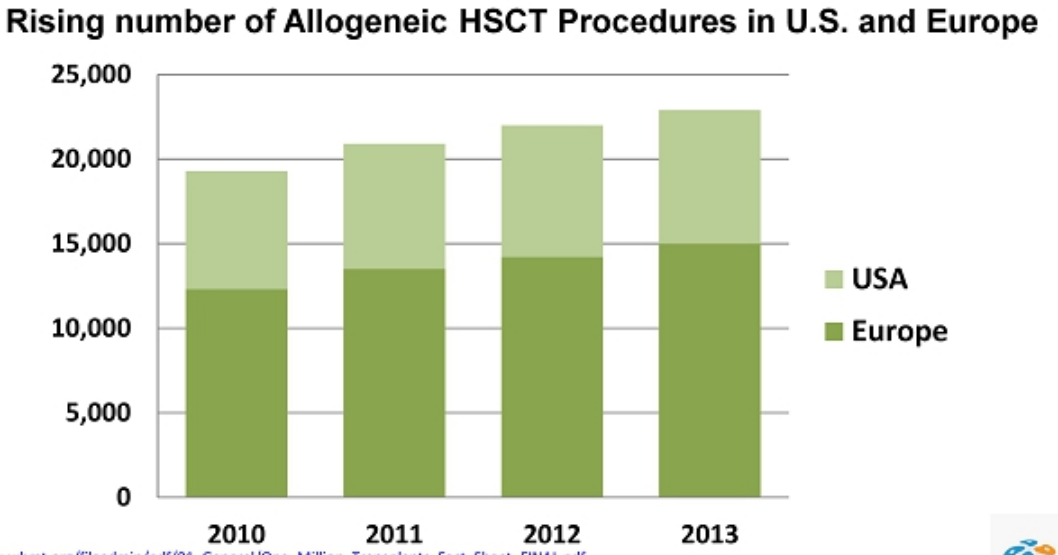
Unmet Need = Market Opportunity

- There were ~23,000 allogeneic HSCT procedures in US & Europe in 2013*
- About 35 – 50% of allogeneic HSCT recipients will develop acute GvHD**
- Incidence of chronic GvHD has been steadily increasing***



*http://www.wbmt.org/fileadmin/pdf/01_General/One_Million_Transplants_Fact_Sheet_FINAL.pdf
**http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2018687/
*** Biol Blood Marrow Transplant. 2015 Feb;21(2):266-74. doi: 10.1016/j.bbmt.2014.10.021. Epub 2014 Oct 30.

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Our Solution: *Powered by Cellect*

- Takes advantage of functional characteristic of stem cells: their differential sensitivity to apoptosis (programmed cell death)
  - When mature cells are introduced to apoptotic ligands they commit suicide
  - In contrast, stem cells flourish in environments where normal cells die
  - Stem cells are attracted to areas with high levels of apoptotic activity
- *Powered by Cellect* platform uses this characteristic to "select" stem cells
- Neutralizes harmful cells, significantly reducing medical complications

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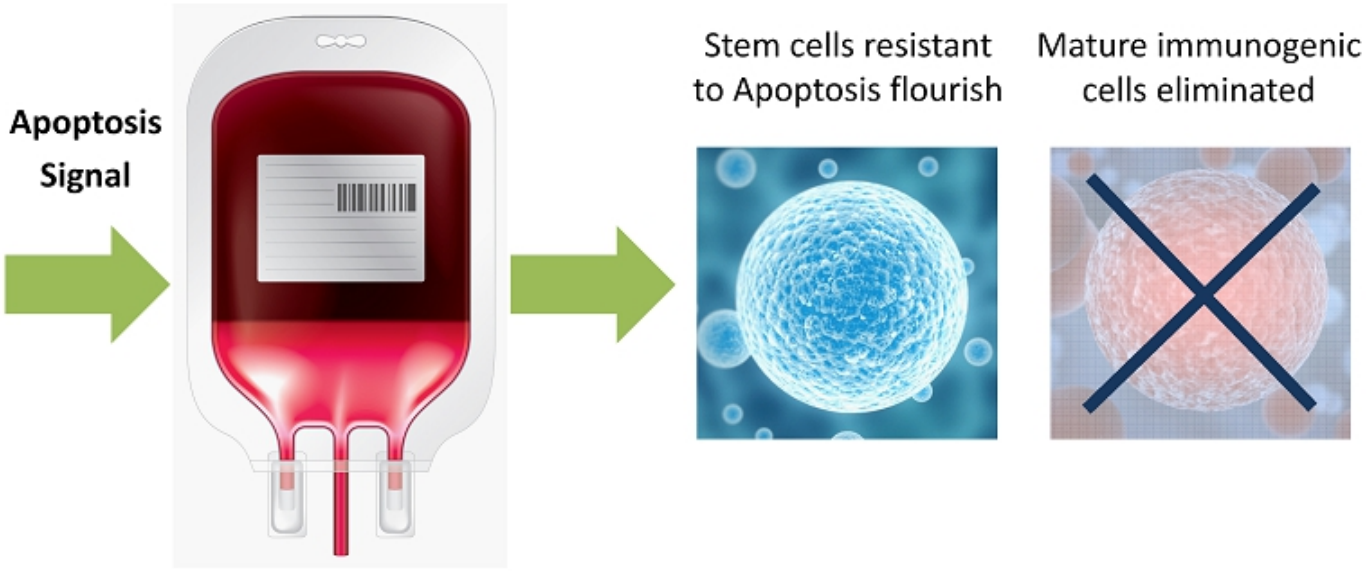
Powered by Cellect : How it Works

Preclinical studies show differential sensitivity to apoptosis signals allows selection of stem cells and elimination of mature immune cells



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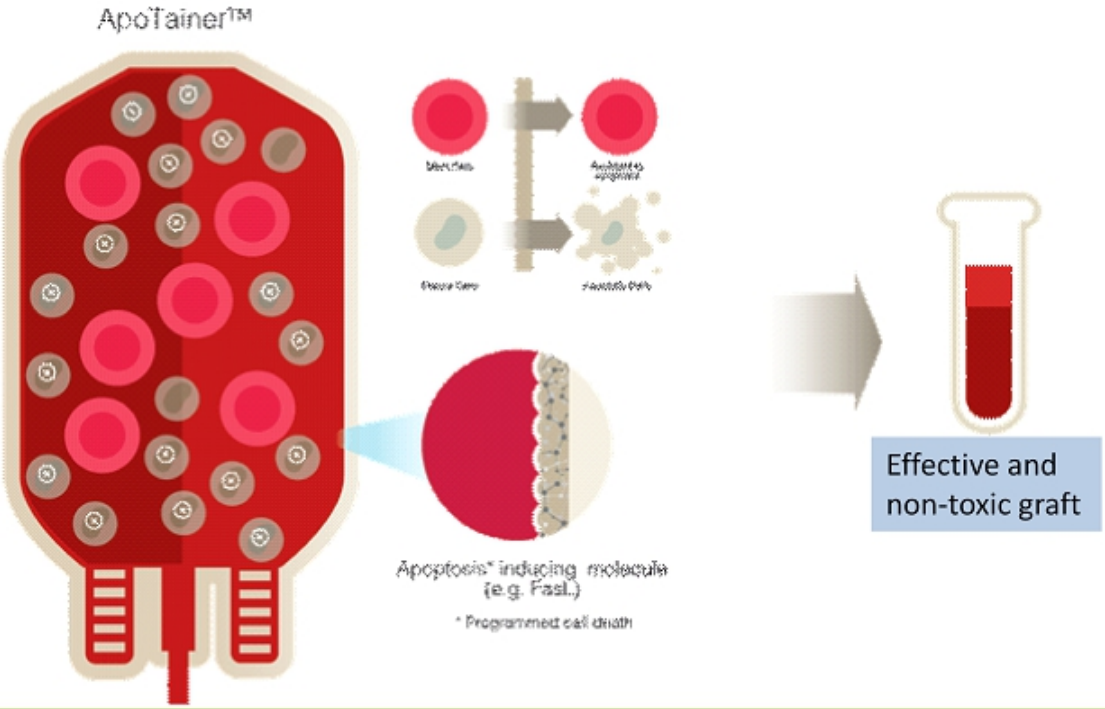
ApoTainer Product Family



Various containers (infusion bag, test tubes, industrial drums) with an apoptotic environment for selection of stem cells from various sources

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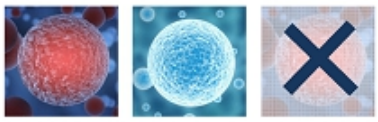
ApoTainer Development

Process



Product (CL101)

Stem Cell

Mature Cell

Death Signal

- ✓ Improved BMT by apoptotic selection
- ✓ Successful binding of apoptotic protein to plastic surface (Entegris collaboration)
- ✓ Preserved apoptosis by coated plastic sheets
- ✓ First prototype of apoptotic-coated infusion bags completed (Q2 2016)
- ✓ Phase 1/2 study initiated – Q2 2016
  - Preliminary results of Phase I/II (Q1 2017)
  - Pivotal study (2018)

POC established for developing off-the-shelf product

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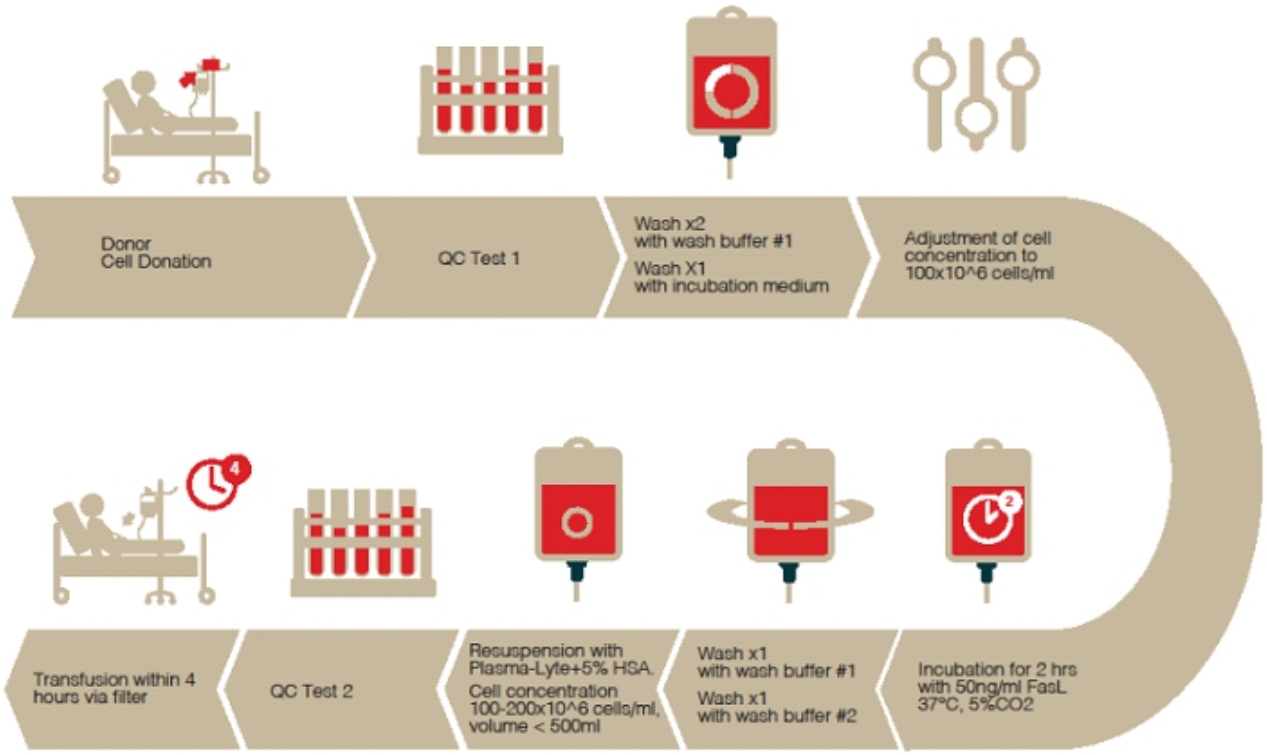
ApoGraft Process



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ApoGraft vs. Current Practice

	Current Procedures	ApoGraft
GvHD	60 – 80%	0 – 10%
Chemotherapy	Wide	Minimal
Rate of Infection	High	Low
Procedure and hospitalization	Months	Several Days
Procedure Cost	~ $70,000	Significantly lower
Total cost of procedure	~ $300,000	Significantly lower

ApoGraft Value-Added:

- Improved engraftment
- Simple, cost-effective procedure
- No need for special laboratory
- Shorter hospitalization stays

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Powered by Cellect : Pre-clinical Results

- Based on 15 years of academic research
- Significant reduction of cells that attack the immune system
- Reduction of GvHD morbidity and mortality (20–100% to <10%)
- Increase in percentage of stem and progenitor cells in sample
- Preservation of successful engraftment and anti-tumor activity

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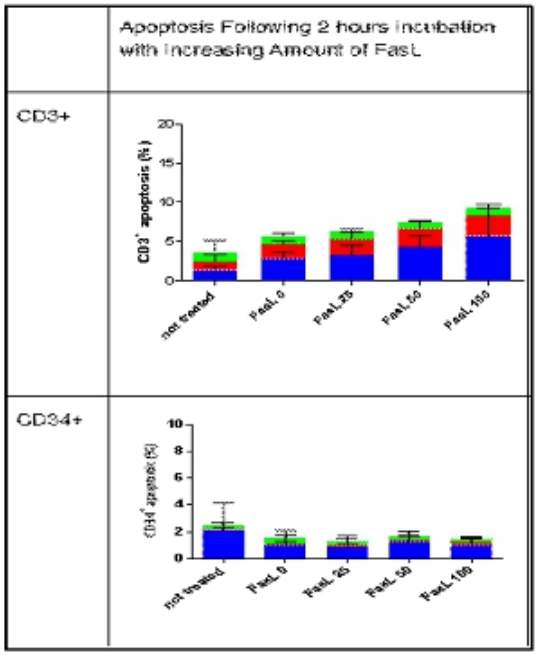
Powered by Cellect : Pre-clinical Results

- Based on 15 years of academic research

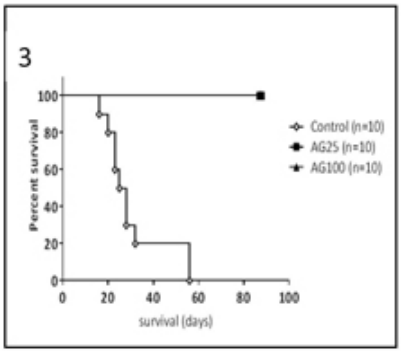
1. Significant reduction of cells that attack the immune system
2. Full preservation of stem and progenitor cells



Pre-clinical Results (cont'd)

3. Reduction of GvHD morbidity and mortality (20–100% to <10%)
4. Preservation of successful engraftment (95% engraftment by Contract Research Organization)
5. Preserved anti-tumor activity

3



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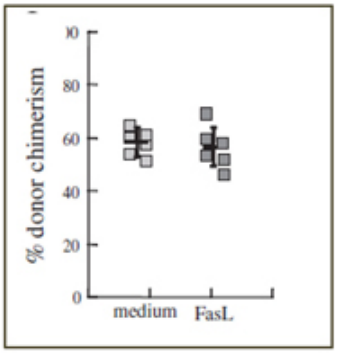

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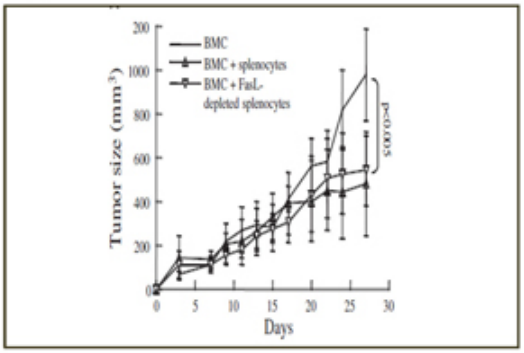

Planned Phase 1-2 Clinical Trial

Location	Israel (Rambam Medical Center in cooperation with Shaarei Tzedek Hospital)
Status	Clinical Trial Phase I/II Hematopoietic stem cell transplantation (HSCT) of Leukemia patients Open Label
Quantity of Patients	12 patients
Trial Purpose	Safety and efficacy
Trial Length	Approximately 18 months
Current Status	Agreement signed with Rambam Medical Center Helsinki committee approval granted Pending Ministry of Health approval

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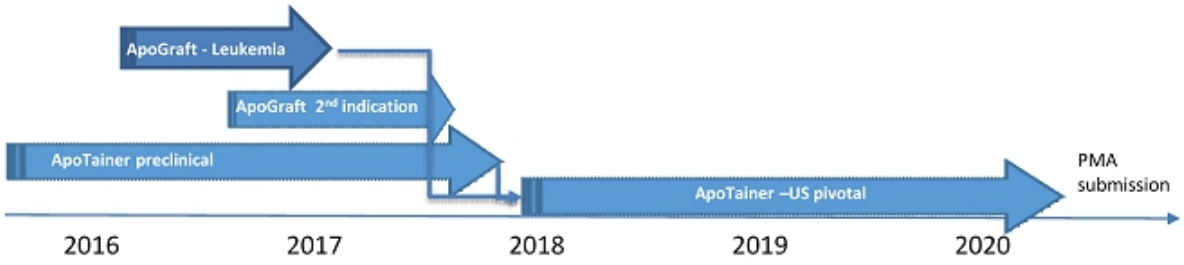
Regulatory Pathway for ApoTainer

- **ApoGraft™ is the stem cells of bone marrow devoid of the toxic mature cells. This process is incorporated into a single device called "ApoTainer".**
- **ApoGraft process is now in initial clinical studies (Phase I/II in Leukemia patients)**
- According to non-formal communications with FDA and EMA ApoTainer™ will be considered as a combination product regulated under medical device regulation (PMA and Class III). Breakthrough technology and orphan designation are highly relevant.



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R&D Milestone Summary (2016-2017)

Completed

- ✓ Regulatory approval from IRB received for Phase 1/2 clinical trial (Q2 2016)
- ✓ Complete human testing in healthy volunteers
- ✓ Complete preliminary product design, α prototype ApoTainer 01 (H1 2016)

Expected

- Clinical trial in leukemia patients undergoing HSCT (Q3 2016)
- Pre-IND meeting (Q4 2016)
- Interim results of Leukemia trial (Q1 2017)
- US/ EU second indication human trial (Q2 2017)
- Finalize prototype of ApoTainer 01 (Q3 2017)
- Initiate pivotal study ApoTainer 01 (2018)

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Development Collaborations

- Entegris (NASDAQ:ENTG, $2B market cap) agreement to co-develop ApoTainer 01

- Collaboration agreement with leading Israeli stem cell company, Accellta, to evaluate Cellect's platform technology on Accellta's stem cell culturing technologies

Commercial Strategy

- Our goal is to achieve rapid validation of *Powered by Cellect* platform via shorter time to market approach
    - Device for allogeneic HSCT targeting leukemia
- Expand *horizontally* to additional indications (diabetes, solid organ transplantation)
- Expand *vertically* to other sources of stem cells (fat, cord blood)
- Expand *depth* to other selection criteria (trade secrets…)
- Use Abgenics approach to value creation through multiple strategic partnerships
- Segment the licensing to strategic partners to establish ApoTainer™ as ***the*** standard enabling technology for any stem cells based product

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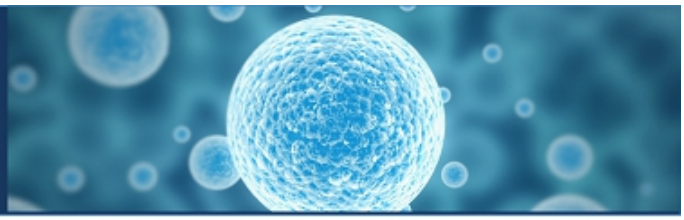
Opportunity is Well Protected

Multiple patents in USA, Europe, India and Israel protecting
Powered by Cellect technology platform and products

- Patent to use apoptosis as selection tool, issued globally (U.S. until 2029)
- Patent for special-purpose containers (National level patent until 2032, pending allowance)
- Patents covering methods of use
- Patents for manufacturing methods
- Patents specific for Mesenchymal cells

8 Families of Patents Submitted Globally

Investment Highlights



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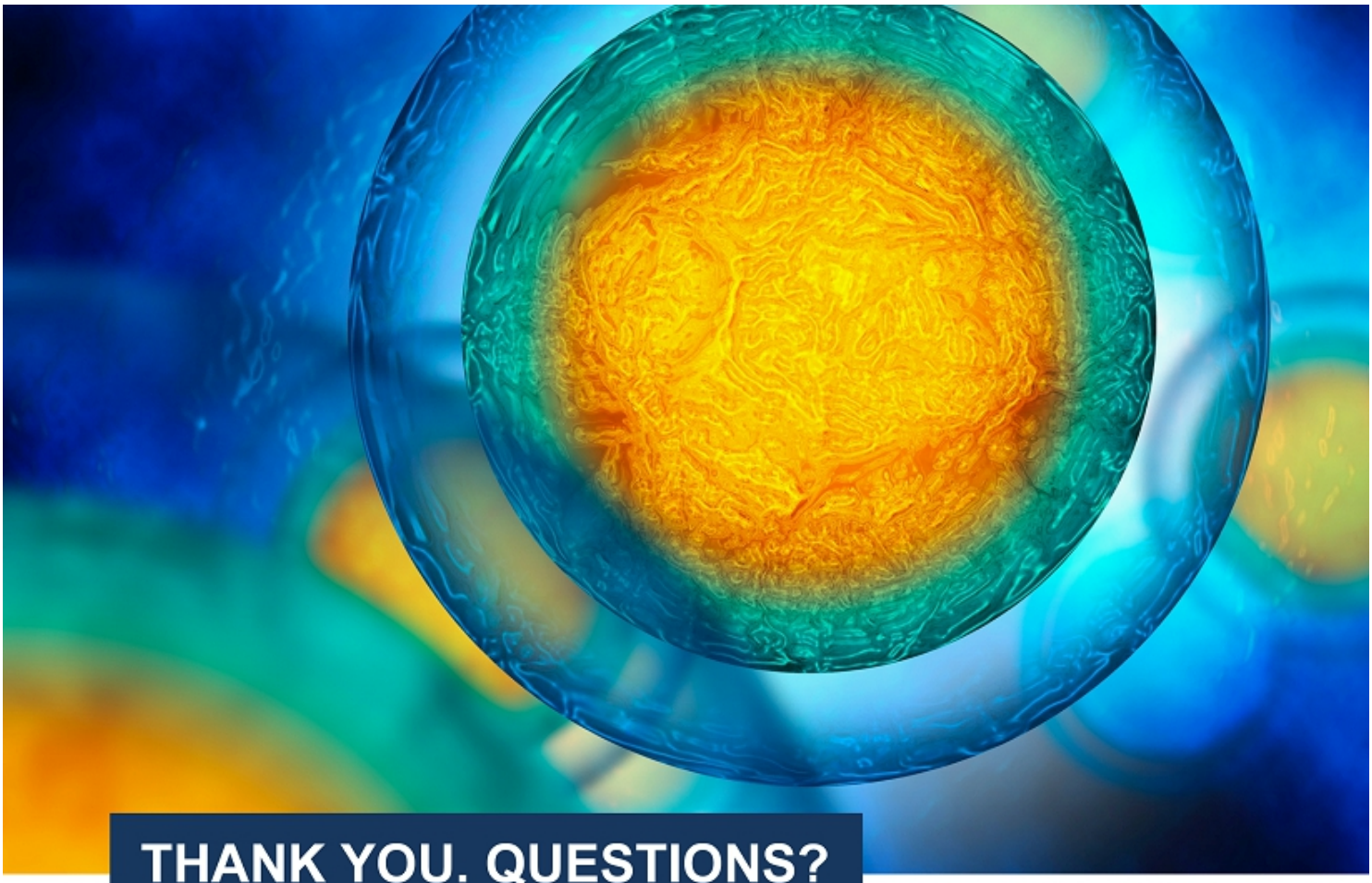
THANK YOU. QUESTIONS?
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