
BIOTIME
The 19th Annual
Future Leaders in
the Biotech Industry
April 20, 2012

Forward Looking Statements

The matters discussed in this presentation include forward looking statements which are subject to various risks, uncertainties, and other factors that could cause actual results to differ materially from the results anticipated. Such risks and uncertainties include but are not limited to the success of BioTime in developing new stem cell products and technologies; results of clinical trials of BioTime products; the ability of BioTime and its licensees to obtain additional FDA and foreign regulatory approval to market BioTime products; competition from products manufactured and sold or being developed by other companies; the price of and demand for BioTime products; and the ability of BioTime to raise the capital needed to finance its current and planned operations. Any statements that are not historical fact (including, but not limited to statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. As actual results may differ materially from the results anticipated in these forward-looking statements they should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

History of the Biotechnology Revolutions

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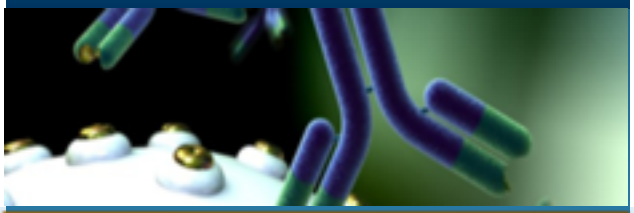
Progressive evolution of new technologies and products over the past four decades

Recombinant DNA Technology

- 1974 – Gene cloning technology developed
- 1976 - Moratorium on rDNA research initiated led to established guidelines on rDNA research
- 1989 – First $B product EPO
- Today, products from the use of rDNA technology are ubiquitous
- >140 clinical trials
- Current Global Market $75 B

Monoclonal Antibodies



- 1975 - Hybridoma technology developed
- 1997- First $B Product Rituximab
- Advances in Mab Engineering
- Today, eight of the 20 best-selling biotechnology drugs in therapeutic monoclonal antibodies
- > 200 clinical trials
- Current Global Market $44 B

Stem Cells

- 1998 – Embryonic Stem Cells isolated
- 2001 – U.S. Federal funding restriction (reversed in 2009)
- 2010 – 1st hES Clinical trial
- 20?? – 1st $B product

History of the Biotechnology Revolutions

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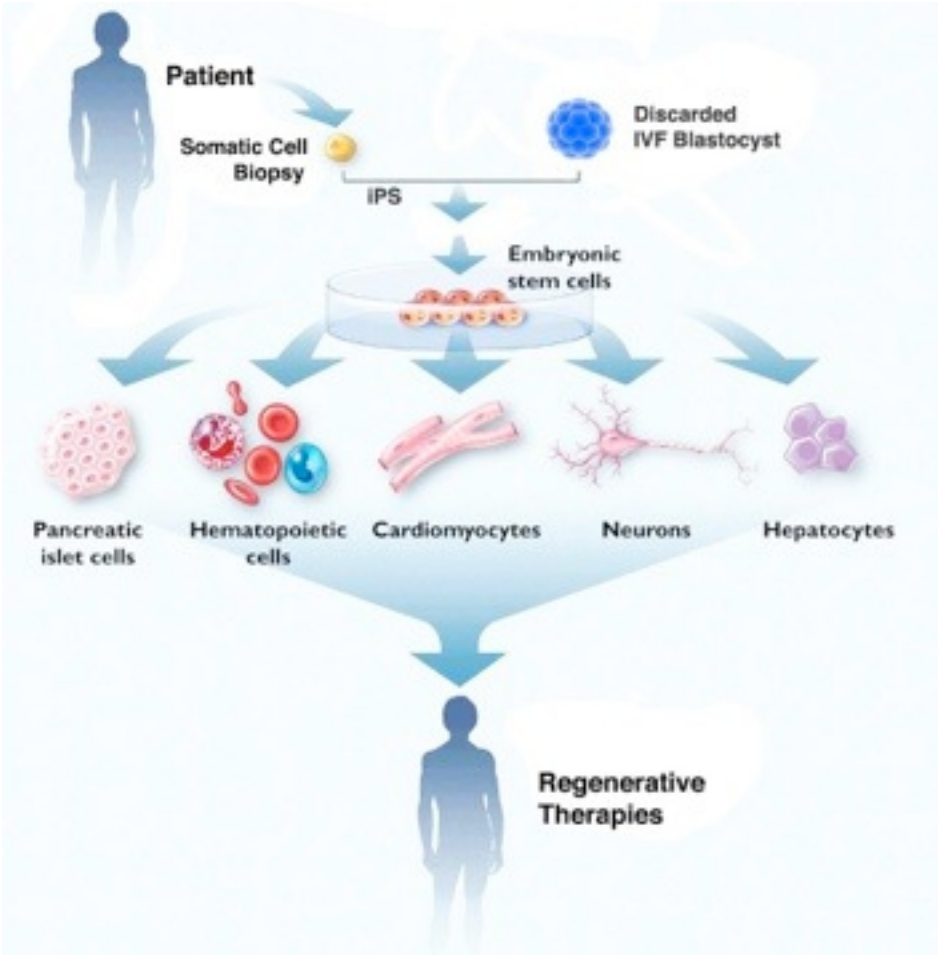
Regenerative Medicine

- Powered by human embryonic stem (hES) and induced pluripotent stem (iPS) cells
- For the first time in history ability to manufacture all human cell types
- iPS cell technology to reverse the developmental aging of cells – histocompatibility
- Indefinite scalability
- Potential new treatment modalities for a host of degenerative diseases
- Large and growing markets



A Global Leader in Regenerative Medicine

- >200 purified human cell types manufactured for the first time
- Full portfolio of intellectual property
- Balance of near-term products:
  - Research products
  - Therapeutics/diagnostic launch in 2013 and 2014
- Longer–term first-in-class stem cell-based therapeutics for currently incurable degenerative diseases
- Subsidiaries focused on specific disease areas

Alameda, California Headquarters

Pluripotent vs. Adult Stem Cells

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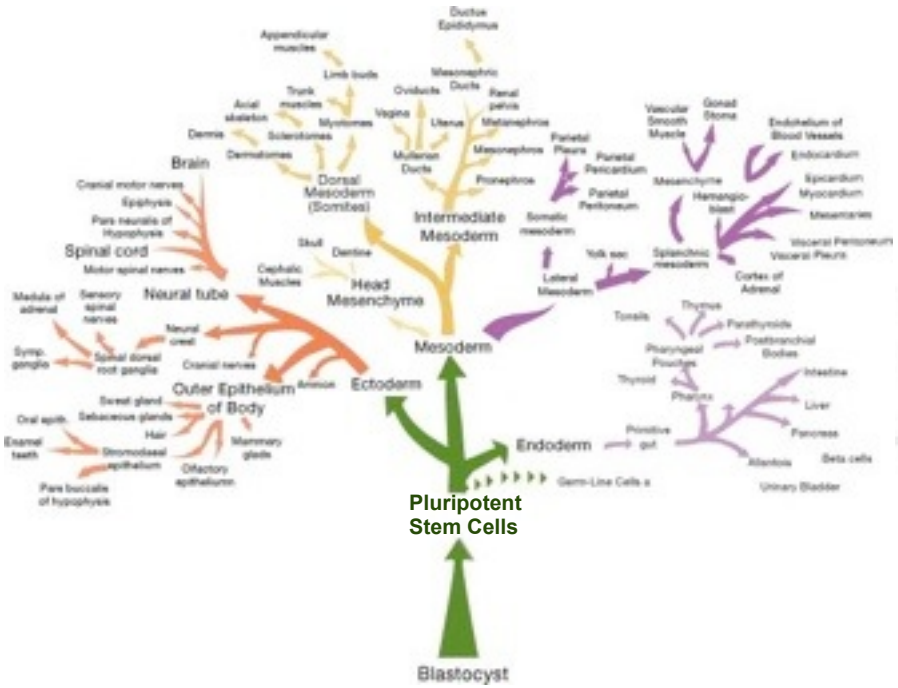
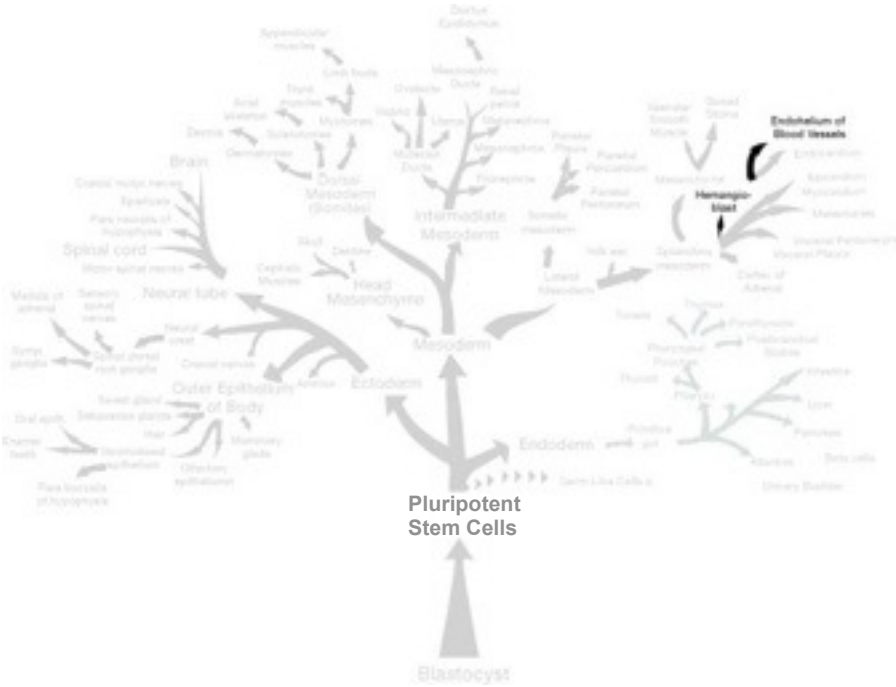
Pluripotent stem cells allow for the first time in history the capacity of medicine to produce all human cell types



Pluripotent Stem Cells



Adult Stem Cells

Solving the Technical Hurdles

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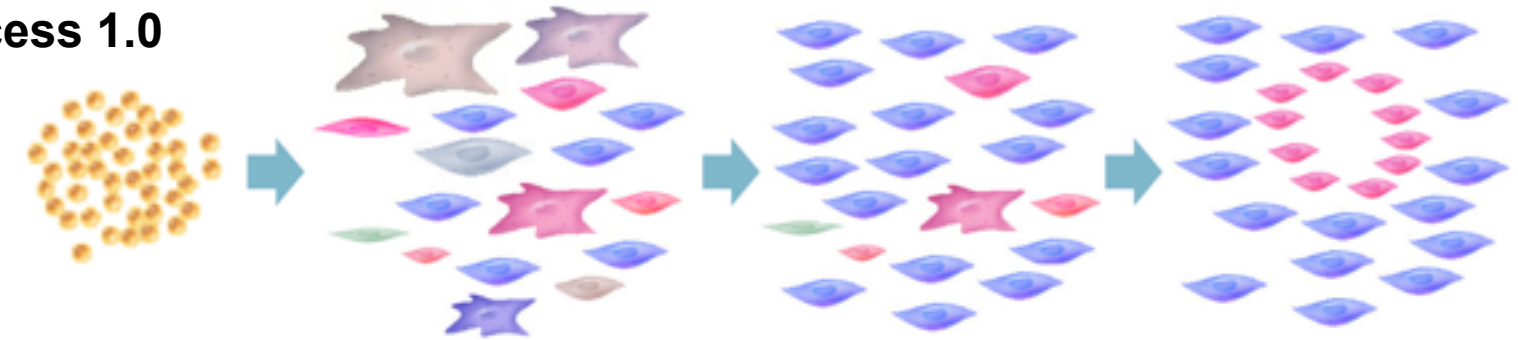
Old Stem Cell Process 1.0



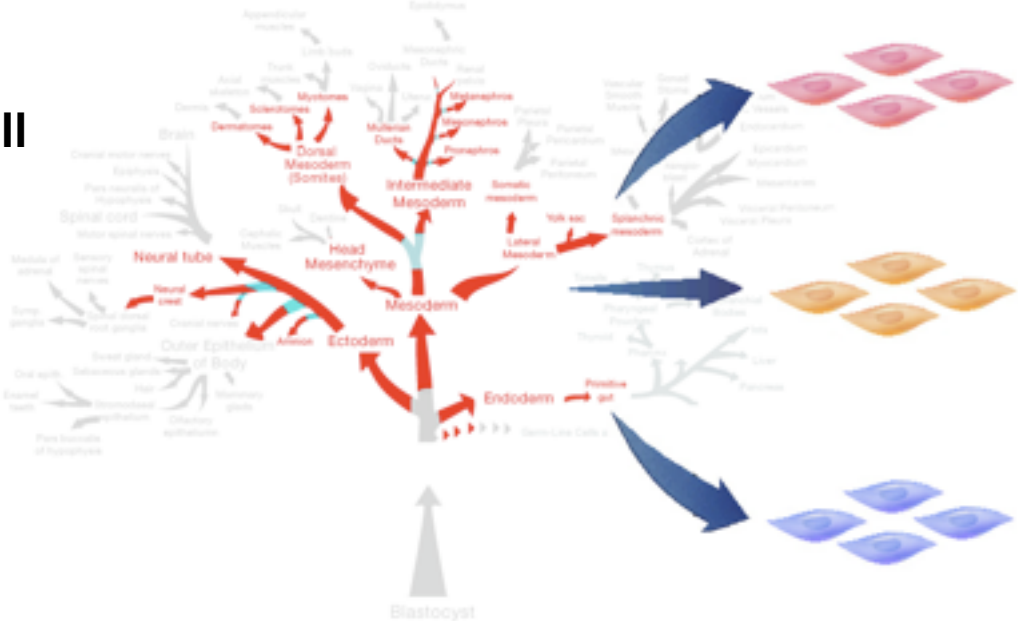
ES Cells

Differentiation

Purification of desired cell type

Toxicity from impurities: Ectopic cysts tumors

New Stem Cell Process 2.0



ACT Cellerate

>200-fold diversity
Scalable monoclonally
Purified progenitors

Manufacturing Technology 2.0

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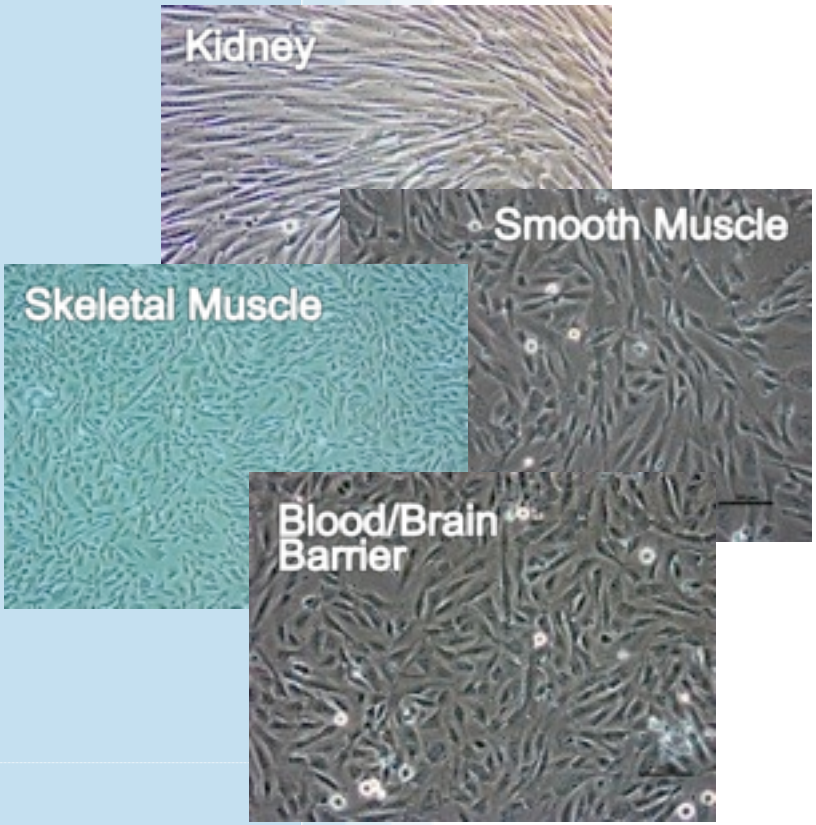
Human embryonic progenitor (hEP) cell lines: > 200 diverse cell types isolated

ACT Cellerate

- Diversity
- Precise identity
- Purity
- Scalability
- Patents pending



HyStem®-Rx: Formulating Cells for Permanent Engraftment

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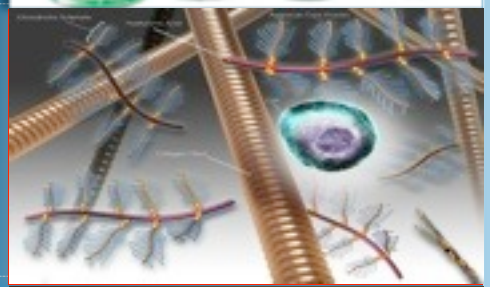
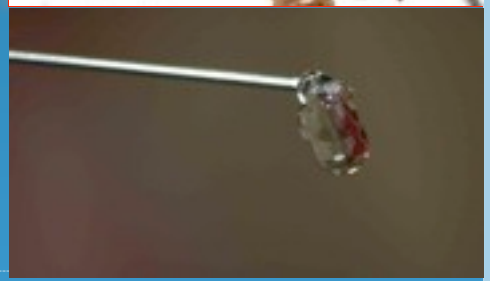
HyStem® hydrogel product line is one of the components in our near-term revenue strategy

Proprietary natural biodegradable polymers that provide 3-D support for injected cells, increasing survival, reducing inflammation, with chemistry that allows polymerization within the body



HyStem®-Rx As an injectable product may address an immediate need in cosmetic and reconstructive surgeries by improving the process of transplanting adipose-derived cells



May support other emerging cell and tissue transplant therapies (hES and iPS)

Potential applications in osteoarthritis, stroke, brain tumor, bone fracture and wounds

HyStem®-Rx – Applications in Cell Delivery

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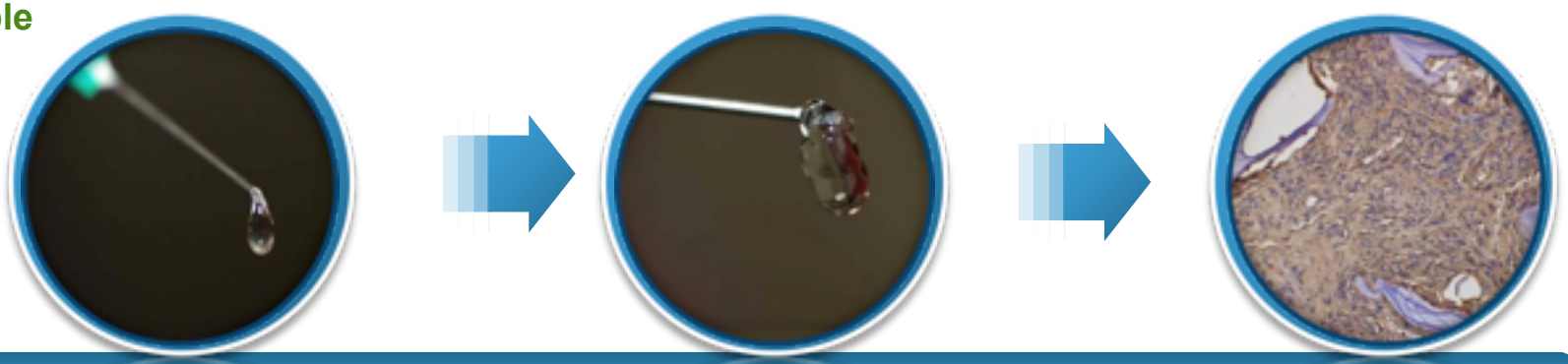
Injectable

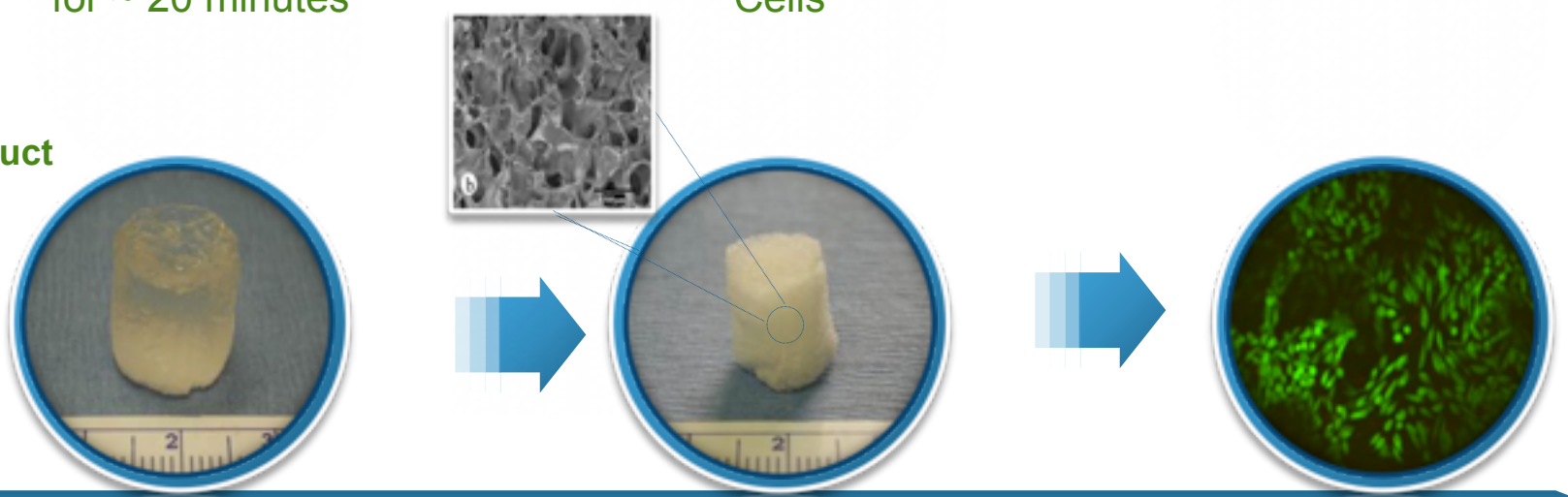


Stays as liquid for ~ 20 minutes

Injectable Gel + Cells

Tissue

Solid Construct



Cast Hydrogel

Sponge

Cells in Sponge

HyStem®-Rx – A Universal Cell Delivery Device

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HyStem®-Rx Regulatory Strategy

- Adipose tissue restoration with ASCs
- Medical device (CE Mark (EU) then CBER/CDRH)
- Outsource cGMP manufacture
- Near-term opportunity, low cost for approval

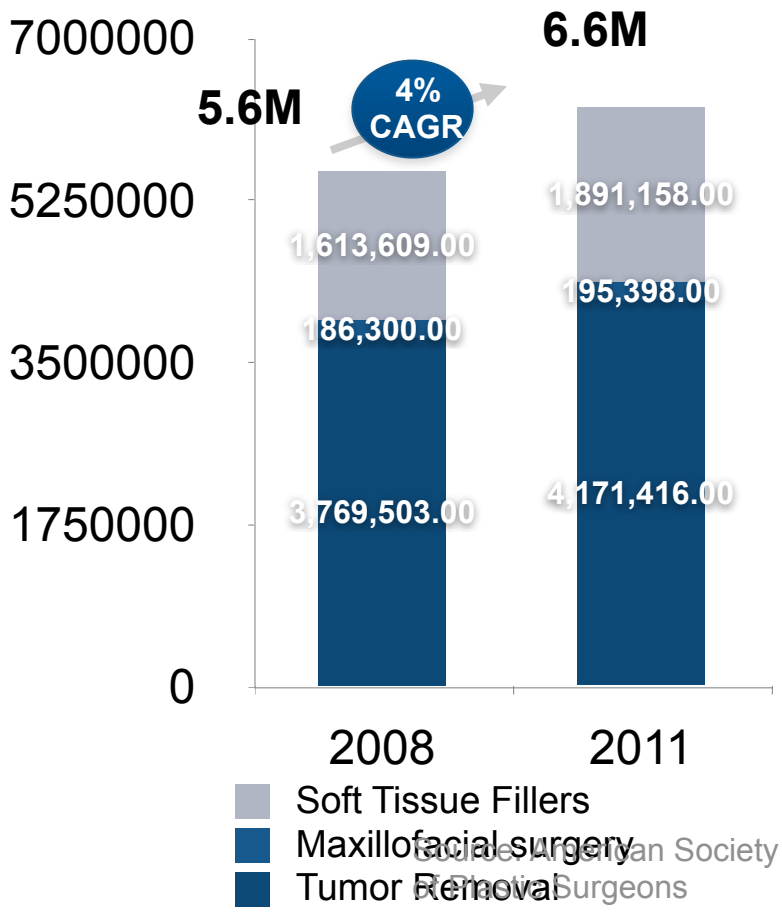
HyStem®-Rx Timeline

Launch HyStem®-Rx in 2013

HyStem-Rx Market Sizing

- HyStem-Rx is a cell delivery matrix for plastic surgery, designed to repair subcutaneous contour defects arising from trauma, cancer resections, and congenital deformities
- Novel biomaterials for filling soft tissue defects represent a growing global market with unmet clinical needs for next-gen plastic surgery
- Applications for HyStem-Rx include both reconstructive surgery and cosmetic surgery – BioTime estimates this growing market totals more than 15 million procedures per annum worldwide

U.S. Plastic Surgery Procedures



BIOTIME Subsidiaries

	% BTX owned
OncoCyte Corporation Cancer diagnostics and anti-cancer therapies	75.3%
Cell Cure Neurosciences Ltd. Age-related macular degeneration (AMD)	53.6%
OrthoCyte Corporation Cartilage repair	100%
ReCyte Therapeutics, Inc. Age-related vascular disorders	95.15%
ES Cell International PTE Ltd. Clinical-grade master stem cell banks	100%
LifeMap Sciences, Inc. Stem cell data base	100%
BioTime Asia, Ltd. BioTime products for Asia market	81%

Subsidiary Strategy

BioTime is consolidating technology, products, and IP in the regenerative medicine field

BioTime may:

- Partly or wholly fund these subsidiaries
- Recruit their management teams
- Assist them in acquiring technology
- Provide general guidance for building the subsidiary companies
- License patents and technology to the subsidiaries
- Receive royalty payments from the commercialization of products or technology developed by the subsidiaries

Subsidiary focus on diverse medical disciplines; BioTime investors benefit from diversification

BIOTIME Subsidiaries

OncoCyte Corporation
Cancer diagnostics and anti-cancer therapies

Cell Cure Neurosciences Ltd.
Age-related macular degeneration (AMD)

OrthoCyte Corporation
Cartilage repair

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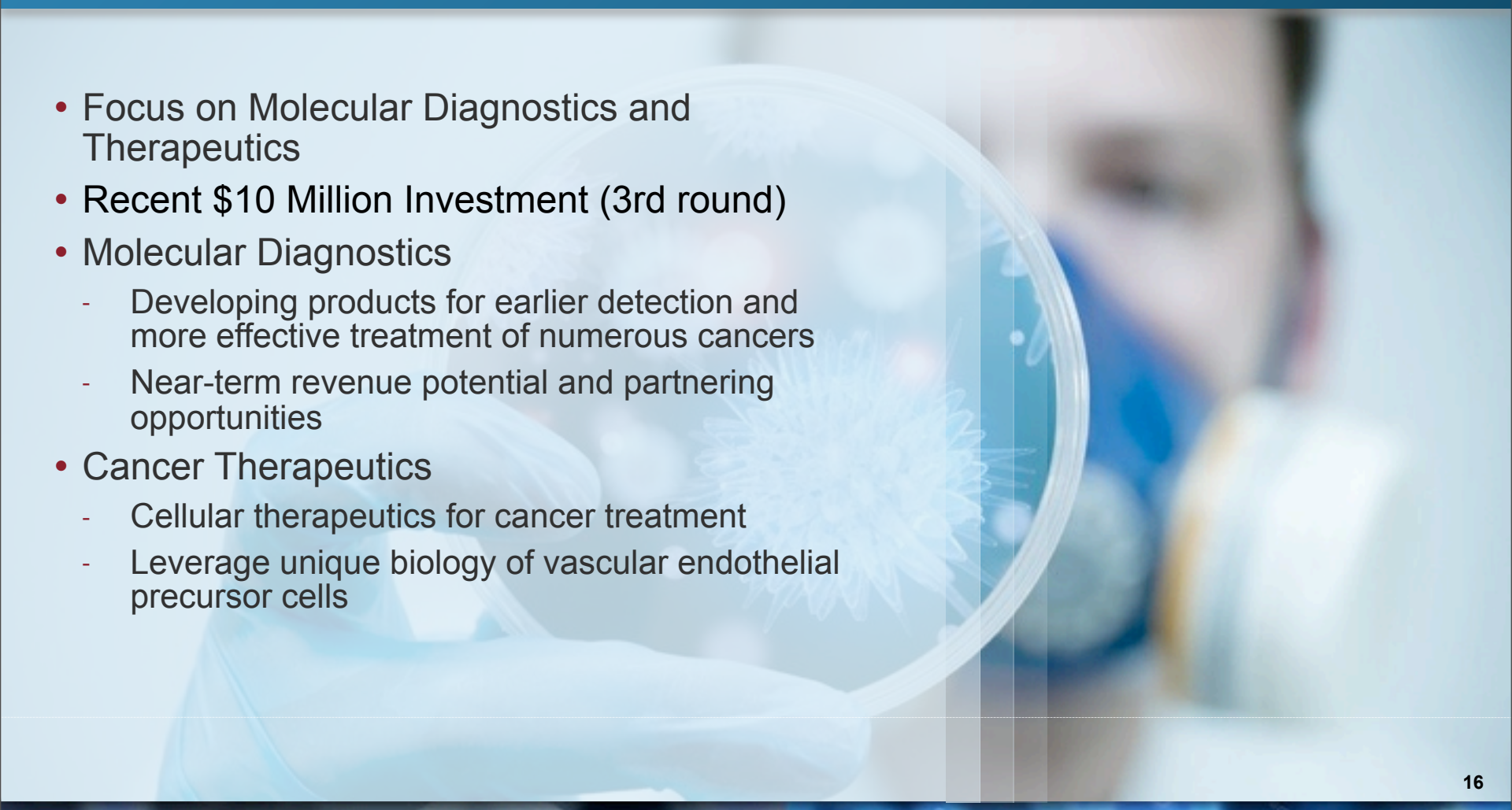
BioTime Asia, Ltd.
BioTime products for Asia market

OncoCyte Corporation

BIOTIME

Developing oncology products at the interface of embryonic stem technology and molecular genetics

ONCOCYTE CORPORATION



- Focus on Molecular Diagnostics and Therapeutics
- Recent $10 Million Investment (3rd round)
- Molecular Diagnostics
  - Developing products for earlier detection and more effective treatment of numerous cancers
  - Near-term revenue potential and partnering opportunities
- Cancer Therapeutics
  - Cellular therapeutics for cancer treatment
  - Leverage unique biology of vascular endothelial precursor cells

OncoCyte Corporation- *PanC-Dx™*

BIOTIME

Screening in asymptomatic patients is the largest market opportunity

ONCOCYTE CORPORATION

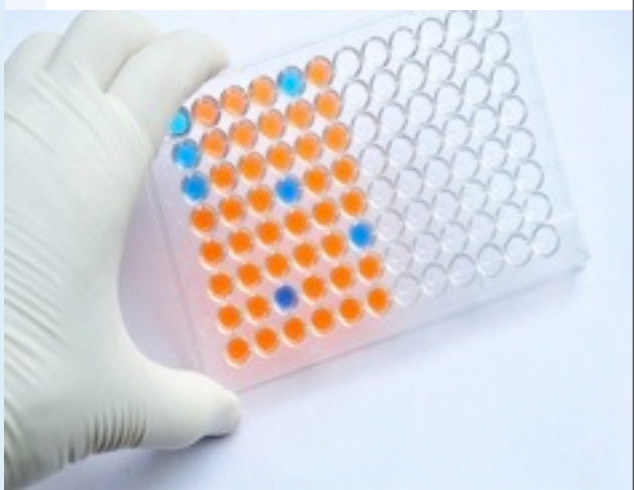
PanC-Dx™

- Pan diagnostic to detect the presence of various human cancers, including cancers of the breast, lung, bladder, uterus, stomach, and colon, during routine check-ups

- A simple, low-cost antibody-based blood test similar to that commonly used to screen for prostate cancer

- Initially develop and seek regulatory approval of PanC-Dx™ in Europe

  - Expected launch in 2014



PanC-Dx™ Cancer Diagnostic

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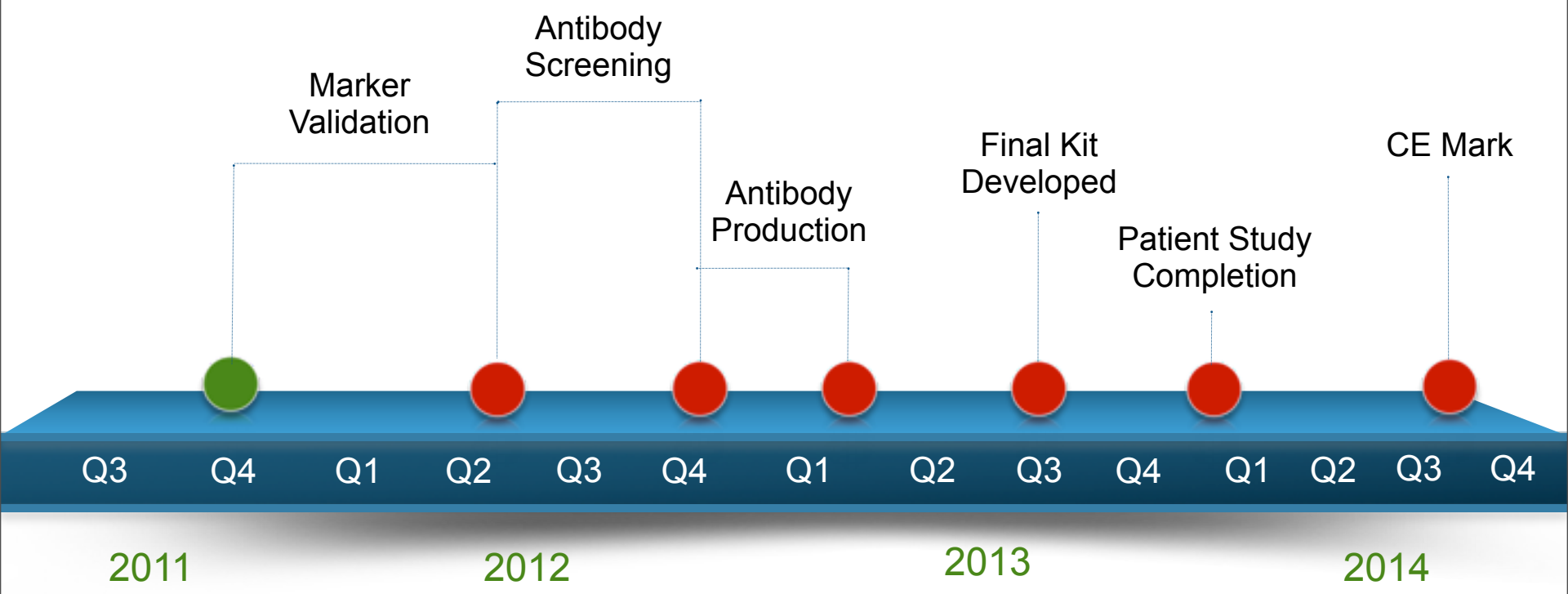
Regulatory Strategy

- CE Mark (EU) then CDRH/OIVD (U.S.)
- Near-term opportunity, low cost for approval

Timeline leading to 2014 launch



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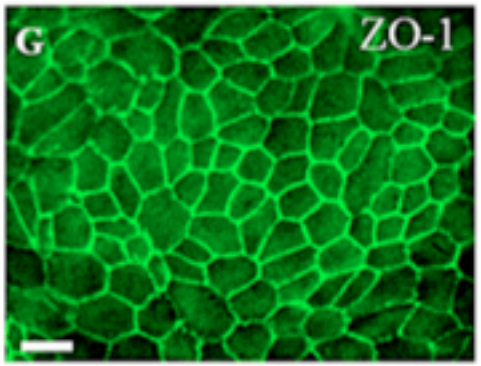
BioTime Asia, Ltd.
BioTime products for Asia market

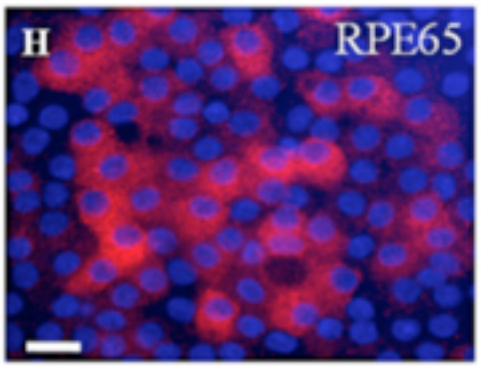
Cell Cure Neurosciences Ltd.

Developing cell therapies for retinal and neural degenerative diseases

- Based in Jerusalem, Israel
- Recent $7.1 million equity investment
- Majority-owned by BioTime
- Other investors:
  - Teva Pharmaceutical Industries
  - Hadasit Bio-Holdings Ltd

- OpRegen® – Suspension of retinal pigment epithelial (RPE) cells for dry age-related macular degeneration (AMD)
- OpRegen® Plus – Matrix bound RPE cells for dry AMD





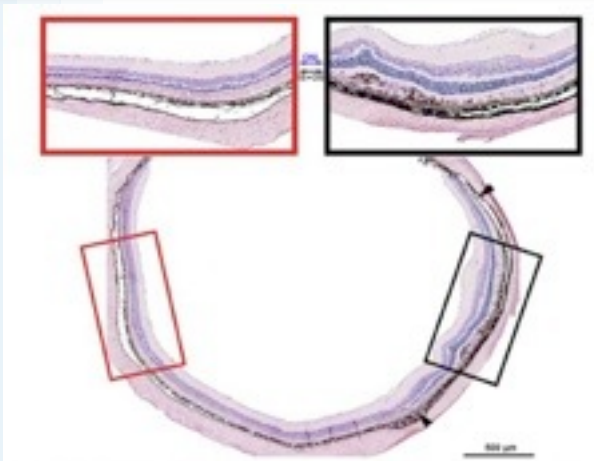
Cell Cure Neurosciences Ltd.

BIOTIME

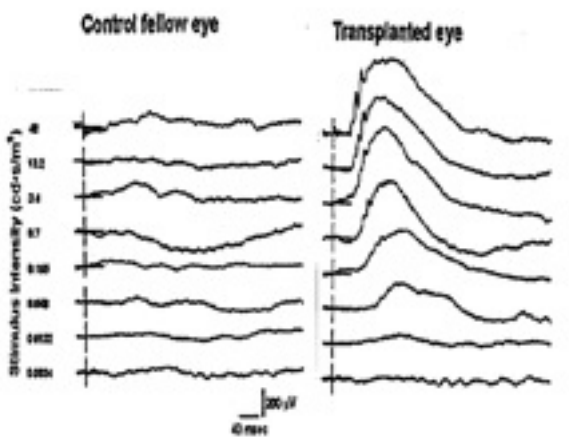
Lead program in age-related macular degeneration (AMD)

CellCure NeuroSciences Ltd.

- AMD Leading cause of blindness over age of 55
  - 1.8 million advanced cases in U.S.
  - 7.3 million early stage cases in U.S.
  - No cure
- OpRegen®- lead development program
  - Use of retinal pigment epithelial (RPE) cells
  - Patented method of differentiated hES cells into xeno-free RPE cells
  - In animal studies, these RPE cells shown to preserve vision when transplanted below the retina
  - Expect IND application to be filed 2013
  - Option by Teva to acquire license and complete clinical development



Idelson et al, *Cell Stem Cell* 2009



BIOTIME Subsidiaries

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Cancer diagnostics and anti-cancer therapies

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BioTime products for Asia market

OrthoCyte Corporation

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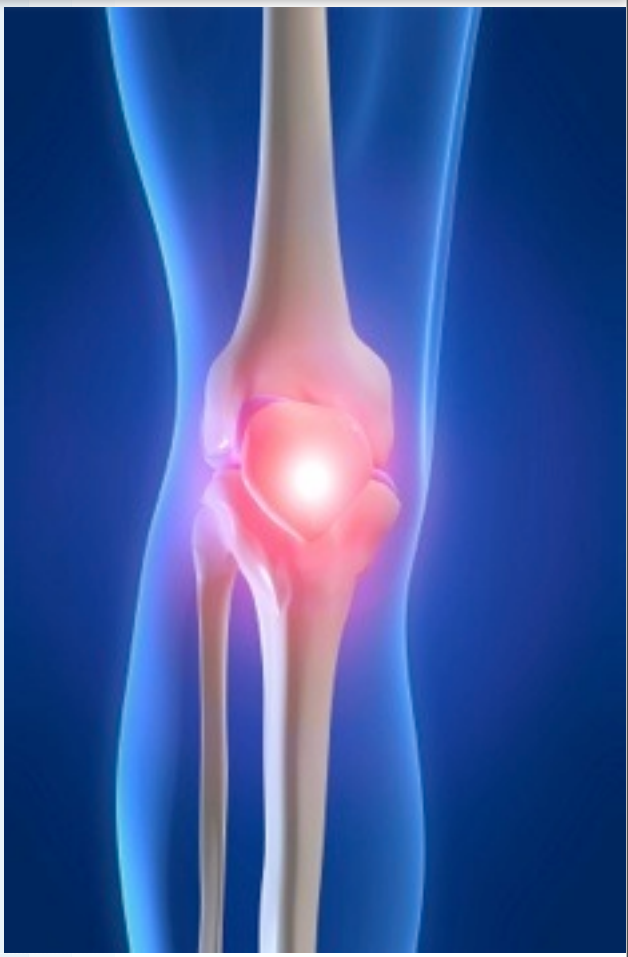
Developing regenerative therapeutics for orthopedic applications

ORTHOCYTE CORPORATION

- Cartilage cannot regenerate on its own
- Osteoarthritis and spinal disc degeneration have a significant impact on mobility and health
  - > 26 million people in U.S. and growing
- Drug treatments target the reduction of pain and inflammation as opposed to repairing tissue
- Embryonic stem cell technologies have the potential of being more effective than other cellular approaches
  - No hypertrophic response is a benefit
  - Off the shelf approach



OrthoCyte- Cartilage Progenitors

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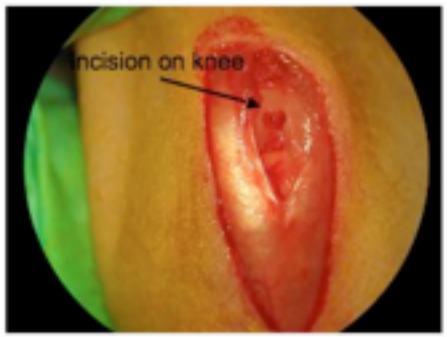
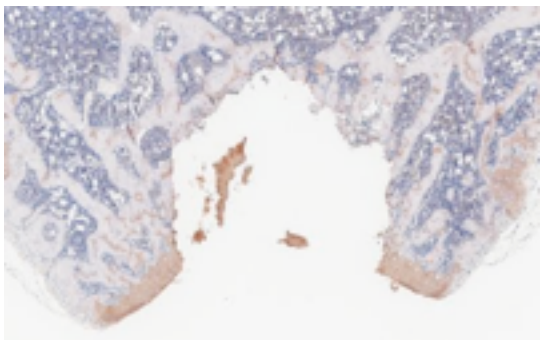
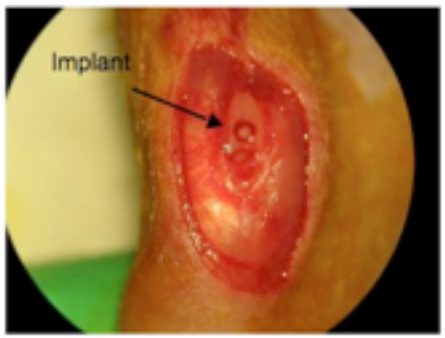
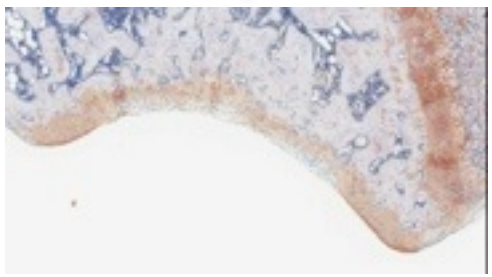
Experimentally-induced trauma → | Implant →



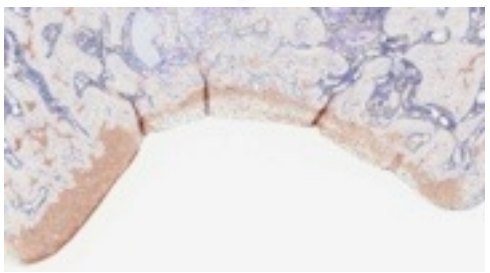




OTX-CP03 ↓



OTX-CP07 ↓



4 weeks

ORTHOCYTE CORPORATION

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ReCyte Therapeutics, Inc.

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Focus on regenerative repair of age-related vascular disorders

RECYTE THERAPEUTICS

- Recent $4 million investment
- Monoclonal embryonic vascular endothelium produced from proprietary ReCyte induced pluripotent stem (iPS) cells
- Embryonic progenitor cells have unequalled advantages in ischemic disease
  - high replicative potential
- Cardiovascular and cerebrovascular (i.e., stroke) therapeutic focus
- The largest market opportunity in an aging population

RCX-VP01 Vascular Progenitor Cells

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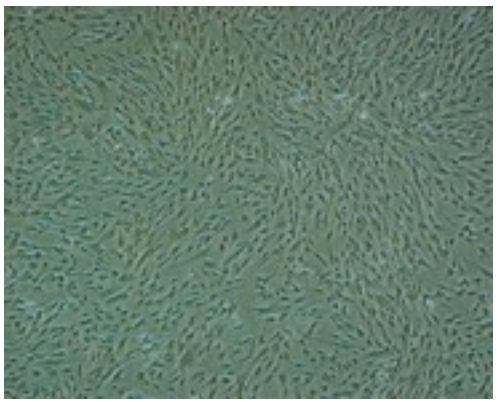
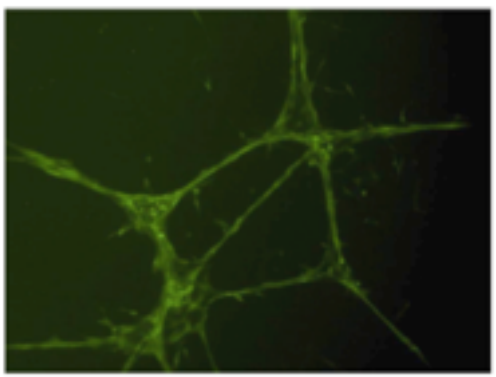
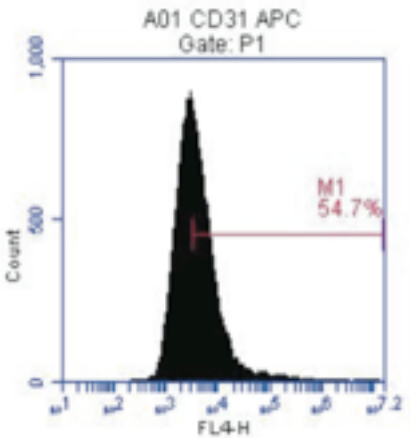
Monoclonal Endothelium



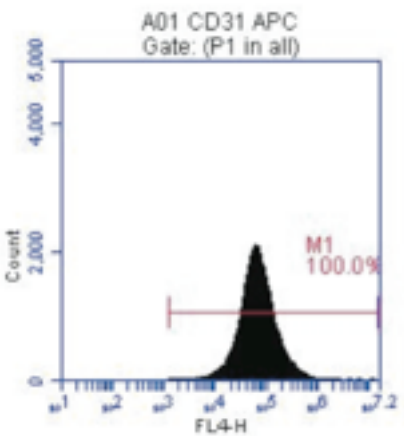
GFP Endothelium (168 hrs)



Heterogeneous



Monoclonal



RECYTE THERAPEUTICS

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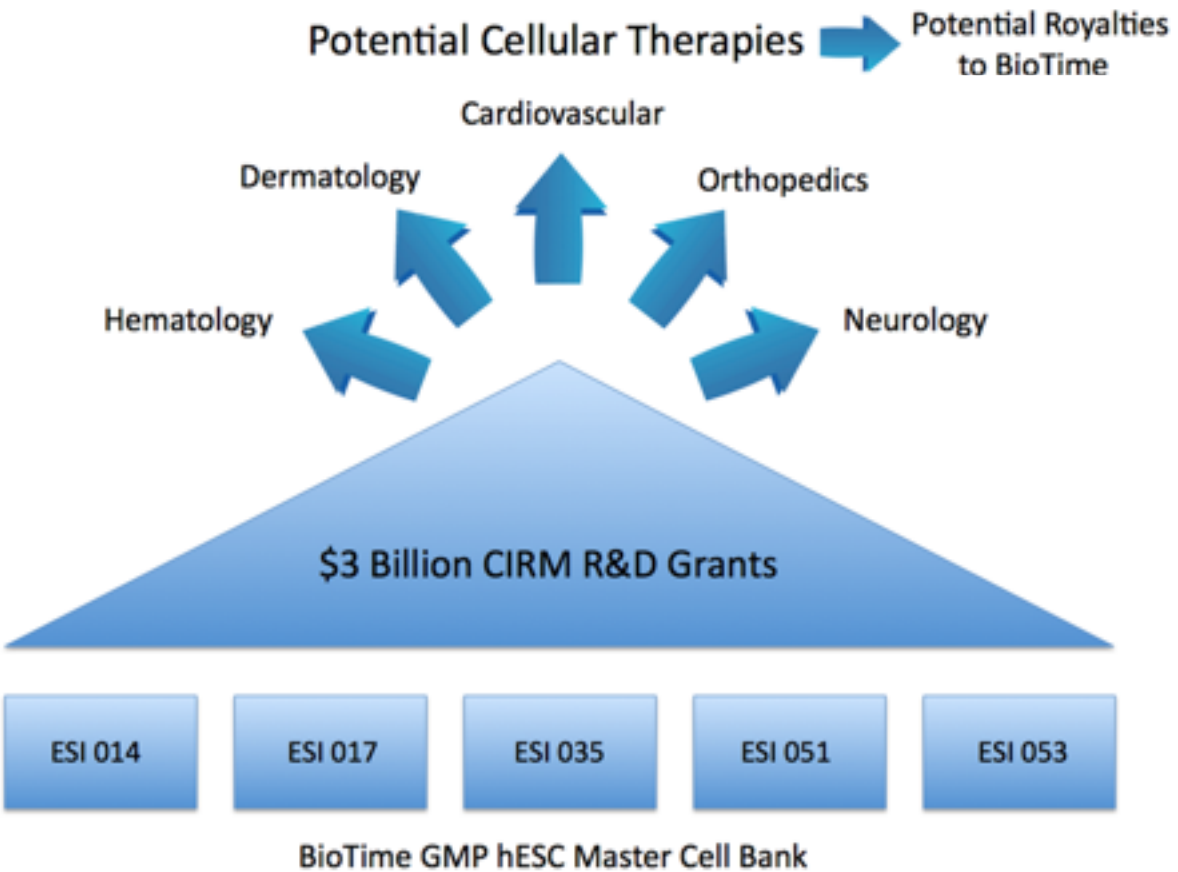
A leading developer of human embryonic stem cell technologies for research and commercial applications

ES CELL INTERNATIONAL

- Model for the industry standard
- World's first human embryonic stem (hES) cell lines derived according to the principles of cGMP
- Clinical-grade master cell banks which generate clonal clinical-grade embryonic progenitor cell lines
  - with unsurpassed purity and quality
- Expected to save years of development time
- Will accelerate development of clinical-grade progenitor cells for research and therapeutic products

California Institute for Regenerative Medicine (CIRM) Collaboration



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A "Rand McNally Road Atlas" of Human Development for the Marketing of Stem Cell Research Products

LifeMap SCIENCES

- LifeMap database to map cellular ontology of embryonic cell development
- Being developed in a collaboration with XenneX
- Announced today agreement to acquire XenneX
- Commercial agreement with Weizmann Institute for GeneCards
- Platform planned for marketing of stem cell-based regenerative medicine products
  - Embryonic stem cells
  - Progenitor cells
  - iPS cells
- GeneCards current source of revenue
- Launch of LifeMap website in 2012

Current Products

Products Currently Marketed by BioTime
Planned to Market Through LifeMap

BioTime

Stem Cells for Research

Human embryonic stem (hES) cells

Approx 100 Human embryonic progenitor (hEP) cells, *ACTCellerate*™

ESpan™ media

Optimized specific growth media for hEP cell lines

HyStem® Hydrogels

Biomaterial that mimics the human extracellular matrix.

Supports cellular attachment and proliferation.

Hextend®

Plasma volume expander for treatment of hypovolemia

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BioTime products for Asia market

BioTime Asia, Ltd.

Geographic focused subsidiary with largest and rapidly growing market opportunity

BIOTIME ASIA

- Licensed rights to BioTime stem cell technology
- Sale of research products
- Primary focus is People's Republic of China
  - Significant focus on stem cell technology
  - Large patient populations
  - Flexible regulation and public acceptance
  - Potential faster track to clinical applications

Product Pipeline

BIOTIME

Preclinical	Phase I	Phase II	Phase III	Market	Partner
Hextend					Hospira, SPI, CJ 제일제당
Research Products/Database					ACT Cellerate
HyStem® Hydrogel Products					
HyStem®-*Rx*				2013	
PanC-Dx™				2014	
OpRegen	2013				TEVA
OTX-CP07					
RCX-VP01					

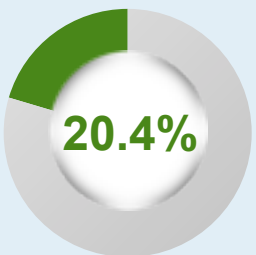
BioTime (NYSE Amex: BTX)

A Technological Leader with Increasing Revenue, Low Burn Rate and Near-term Product Opportunities

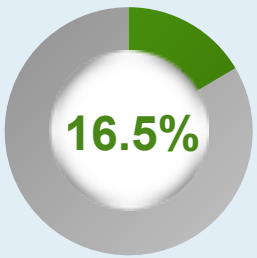
Key Statistics:

- $28.5MM in available: $22.2MM cash plus $6.5 MM in investments as of 12/31/11
- Est. revenue of $4.4MM in FY 2011
- No debt
- Current burn rate of $3.3MM per quarter
- 50.3MM Shares Outstanding

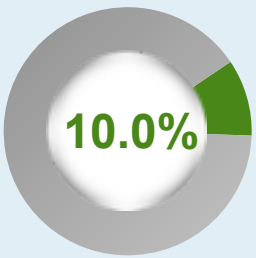
Major Shareholders:



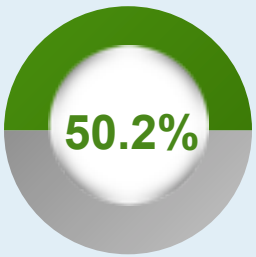
Greenbelt/Greenway/
Al Kingsley (Chairman)



Broadwood Capital
(Neal Bradsher, Director)



Individual Investor



Insiders
& LT Investors

Long-term investors hold approx. 50% of stock

BioTime's Key Milestones

Next 12 months…

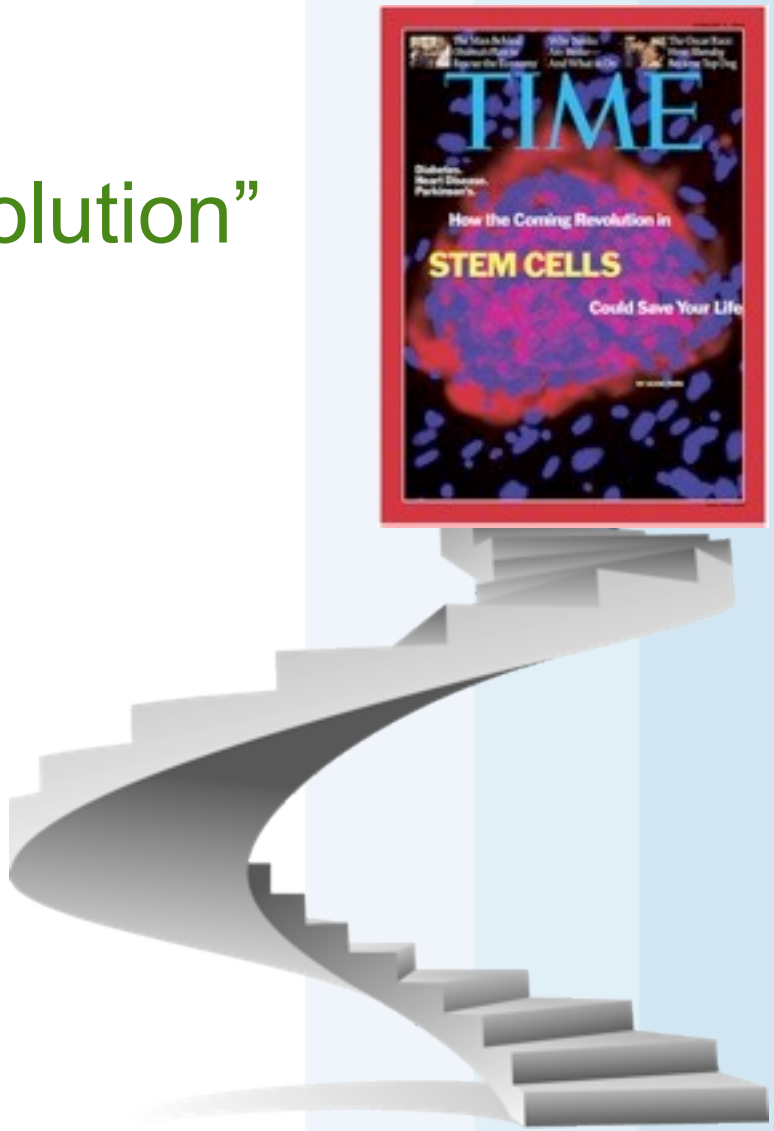
- Completion of *HyStem®-Rx* clinical trial
- IND filing of *OpRegen™* for AMD
- Completion of *PanC-Dx™* patient study
- Acquisition of additional technologies
- Corporate partnering and collaborations
- Increased revenue from sale of research products

BioTime's Unique Opportunity

BIOTIME

Positioned for the coming regenerative medicine "revolution"

- Highly purified, diverse, and scalable cellular formulations
- Growing demand for therapies to target degenerative disease due to an aging population
- Leading intellectual property and expertise
- A balance of near-term product opportunities



Thank You!

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