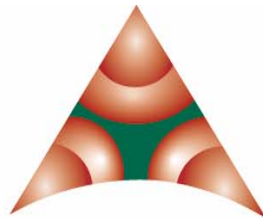


Confidential

**Harris Nesbitt**  
***Focus on Healthcare***

***December 8, 2005***



ADVANCED **C E L L** TECHNOLOGY



## **Cautionary Statement Concerning Forward-Looking Statements**

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This presentation contains “forward-looking statements” as defined under the federal securities laws. Actual results could vary materially. Factors that could cause actual results to vary materially are described in our filings with the Securities and Exchange Commission.

You should pay particular attention to the “risk factors” contained in documents we file from time to time with the Securities and Exchange Commission. The risks identified therein, as well as others not identified by the Company, could cause the Company’s actual results to differ materially from those expressed in any forward-looking statements.

# The New York Times

Copyright © 2005 The New York Times

MONDAY, OCTOBER 17, 2005

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THE NEW YORK TIMES NATIONAL MONDAY, OCTOBER 17,

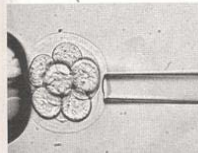
## Stem Cell Technique Tried on Mice Saves Embryo

Continued From Page A1

vide three times until it contained eight cells, a stage just before the embryo becomes a blastocyst. Removing one of these cells, they then coaxed it into growing in glassware and forming cells that have all the same essential properties as embryonic stem cells derived from the inner cell mass, Dr. Lanza's team reports.

The seven-cell embryo was implanted in the mouse uterus and grew successfully to term. This part of the procedure is known to work with humans too, because it is the basis of a well-established test known as preimplantation genetic diagnosis. In the test, one cell is removed from each of a set of embryos and tested for any of 150 genetic defects, giving the parents the choice of implanting an embryo that is disease free.

Dr. Lanza's technique is likely to be welcomed by many in the middle of the debate, although it has not won over the United States Conference of Catholic Bishops. Richard M. Doerflinger, its deputy director for pro-life activities, dismissed the tech-



Advanced Cell Technology

A mouse embryo at the eight-cell stage, shown just before a blastomere is to be extracted.

nique, saying that preimplantation genetic diagnosis itself is unethical.

The technique "is done chiefly to select out genetically imperfect embryos for discarding, and poses unknown risks of future harm even to the child allowed to be born," Mr. Doerflinger said in an e-mail message.

Only a procedure that generated embryonic stem cells without creating or destroying embryos "would address the Catholic Church's most fundamental moral objection to embryonic stem cell research as now pursued," Mr. Doerflinger said in testimony last December to the President's Council on Bioethics.

growing a culture of perfectly matching embryonic stem cells.

The cells would be available throughout the child's life for the kind of tissue and organ repair that it is hoped stem cells will one day provide. In many of the degenerative diseases of old age, from heart attacks to Parkinson's, the body loses vital cells and fails to replace them, an omission that could perhaps be overcome if embryonic cells like those present at the beginning of life were available to generate replacement cells artificially.

With the parents' consent these cells could also be used for research, providing many new embryonic stem cell lines for laboratories. The procedure might be even be offered for all embryos generated in fertility clinics when its theoretical risk has been better assessed.

"I can see a day when every fertility clinic embryo has a cell removed and banked for future tissue use or organ replacement," said Ronald M. Green, an ethicist at Dartmouth.

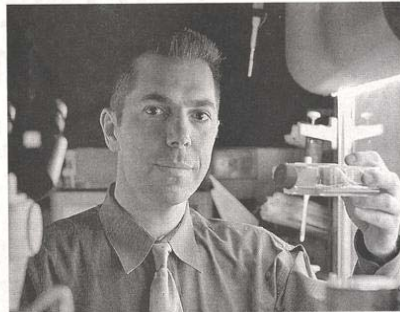
Children born after the preimplantation diagnosis procedure have the same incidence of birth defects as those who did not undergo the procedure. So far, after some 10 years of experience, there is no indication that it causes health problems in humans, said Andrew R. La Barbera, scientific director of the American Society for Reproductive Medicine.

If Dr. Lanza's technique succeeds in generating human embryonic stem cell lines, Dr. La Barbera said, "I suspect that indeed it will become routine to generate stem cells for everyone who undergoes preimplantation genetic diagnosis."

But Kathy Hudson, director of the Genetics and Public Policy Center at Johns Hopkins University, said there was "little data that documents the safety and efficacy" of the preimplantation diagnosis procedure, even after 2,000 births. She urged the American Society for Reproductive Medicine to create a national database to address the safety issue.

The other alternative method reported in Nature today addresses an ethical objection to therapeutic cloning, the idea of treating patients with new tissues generated from their own cells.

The cells would be obtained by taking the nucleus from a patient's skin cell and injecting it into a human egg whose nucleus had been removed. The egg develops into a blastocyst from which embryonic stem cells can be derived in the usual way. Critics say this nuclear transfer tech-



Rick Friedman for The New York Times

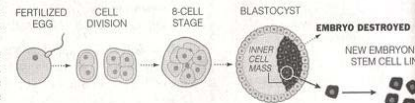
Robert Lanza and colleagues have experimented with mice to develop a technique to generate stem cells but leave the embryo viable.

### A New Way to Create Embryonic Stem Cells

In an effort to satisfy those who have moral objections, scientists have developed a new method to generate embryonic stem cells that does not destroy the embryo. One of the new methods is shown below.

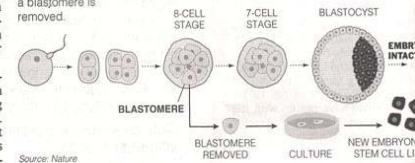
#### CURRENT METHOD

1. A fertilized egg undergoes cell division, becoming a mass of cells called a blastocyst after 5 days.
2. Stem cells are taken from the inner cell mass of the blastocyst, destroying the developing embryo.



#### A NEW METHOD

1. After the third division, at the 8-cell stage, a single cell called a blastomere is removed.
2. The blastomere is cultured with an established embryonic stem cell line and then separated to form new lines.
3. Because the blastocyst is left intact, the developing embryo can still be implanted in the uterus.



Source: Nature

The New York Times



ADVANCED CELL TECHNOLOGY



## Investment Considerations

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- A Leader in Regenerative Medicine – the Next Frontier in Medicine
- Product Focused – Driving Human ES Cell Therapies to the Clinic
- Intellectual Property – Proprietary Human ES Cell Technology
- Human Capital – Talented Team of Scientists and Management
- Financial Resources – Strong Cash Position and Public Currency

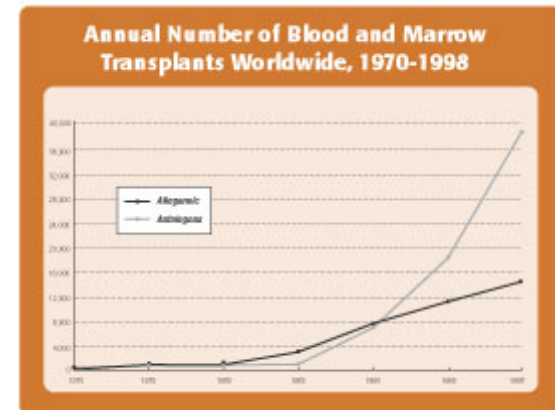
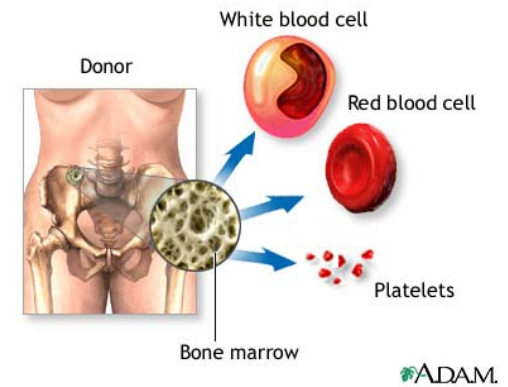
# **Realizing the Potential of Human Embryonic Stem Cells**

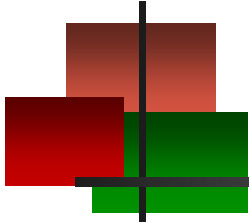


ADVANCED **CELL** TECHNOLOGY

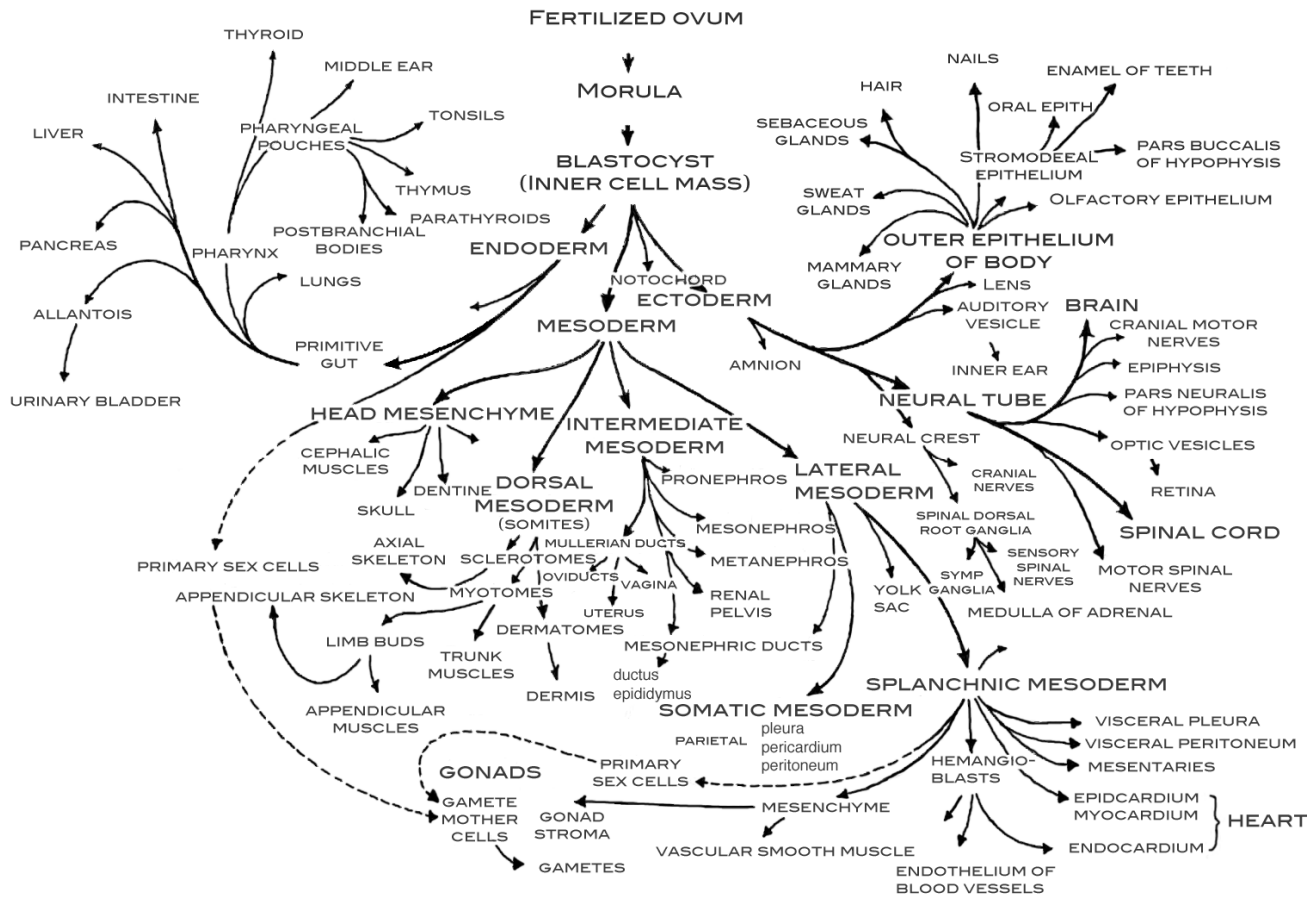
# Stem Cells are a Proven Therapy

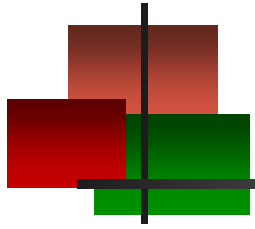
- First successful bone marrow transplant (BMT) in 1968
- Tens of thousands of patients have been cured with BMT
- Human embryonic stem cells first isolated in 1998
- hESC's have significant potential to treat diseases



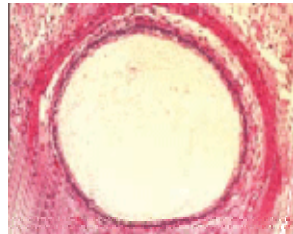


# The Potential of Human ES Cells - Pluripotency

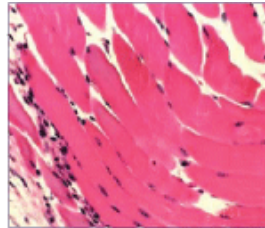




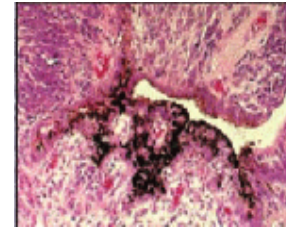
# ES Cells Form Complex Tissues



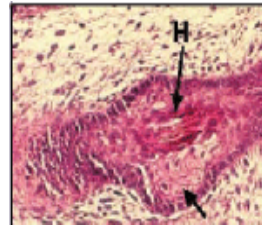
Intestine



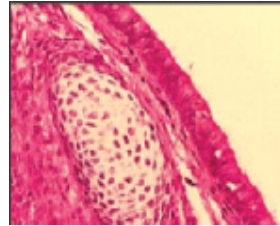
Muscle



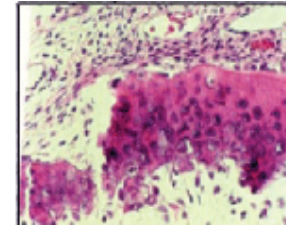
Retina



Hair / Skin

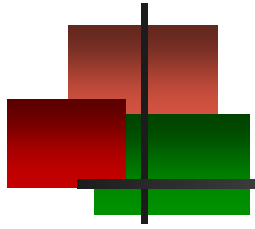


Cartilage

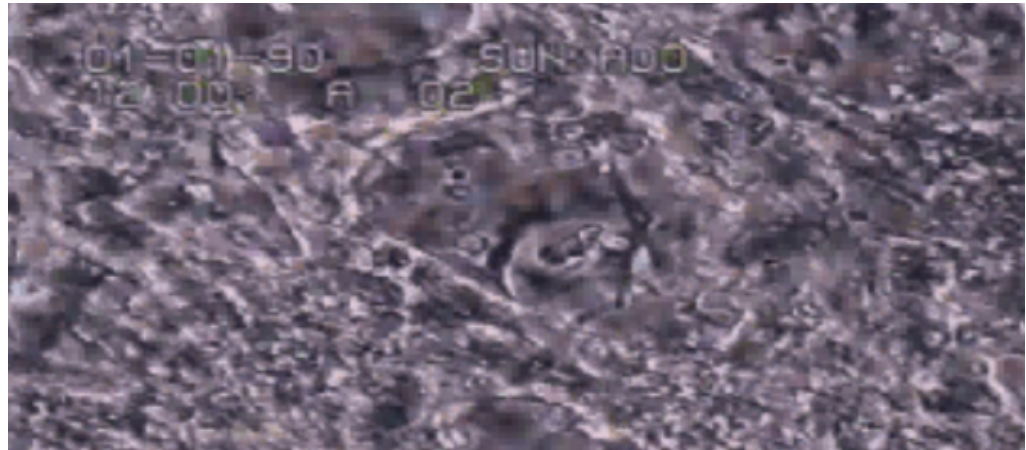


Bone

Science 2002 295: 819  
PNAS 2003, 100 Suppl 1:11911



# The Potential of Human ES Cells

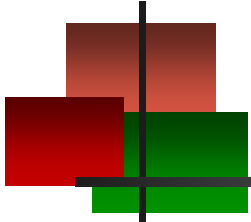


*Beating heart cells*

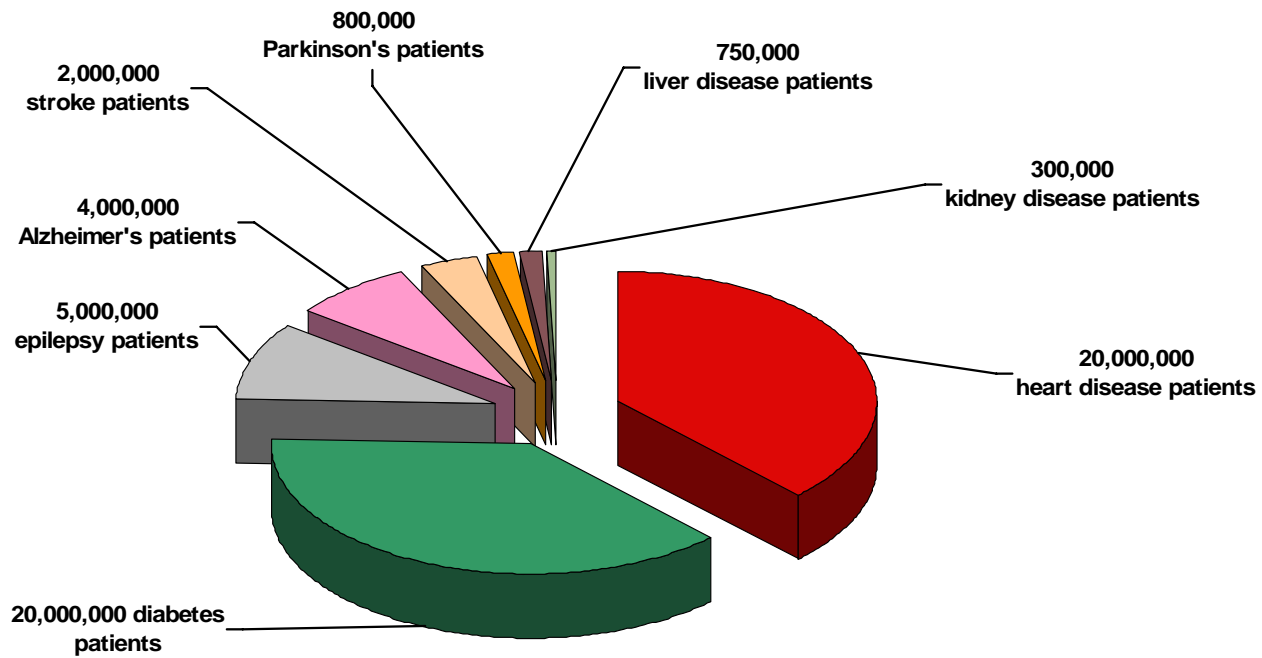
# **Regenerative Medicine**

## **“The New Frontier”**





# Regenerative Medicine Curing Devastating Disease

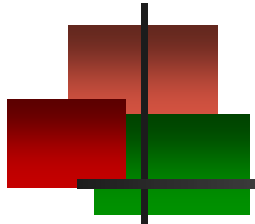




## Growing Legislative Support

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- California & Proposition 71
  - Voters approve \$3.0 billion in funding over next ten years
  - Formation of CA Institute of Regenerative Medicine (CIRM)
  - Recent awards of initial training grants
- Other State Initiatives
  - MA, CT, NJ, NY, IL, FL
- Federal Legislation
  - Bi-partisan House of Representatives Bill H.R. 810
  - Federal Funding for Alternative Methods of Deriving Human ES Cells



## The Next Frontier in Medicine

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“Science has presented us with a hope called stem-cell research, which may provide our scientists with answers that have so long been beyond our grasp.”

**Nancy Reagan**

“This is not a matter of using a human embryo that has the potential to produce life. Rather, these otherwise discarded embryos have the potential to save lives.”

**Senator Arlen Specter (R-PA)**

“[Stem cell research] is the most promising research in healthcare perhaps in this history of the world and we should not be left behind in this research.”

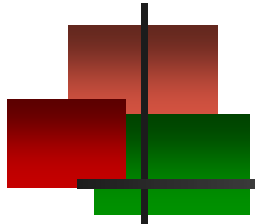
**Senator Orin Hatch, (R-Utah)**

"If the potential of stem cell research is realized, it would mean an end to the suffering of millions of people. If stem cell research succeeds, there isn't a person in the country who won't benefit, or know somebody who will."

**Michael J. Fox**

# **ACT Business Strategy**

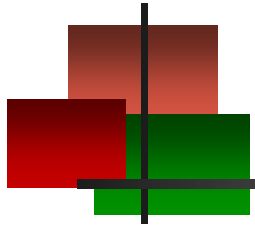




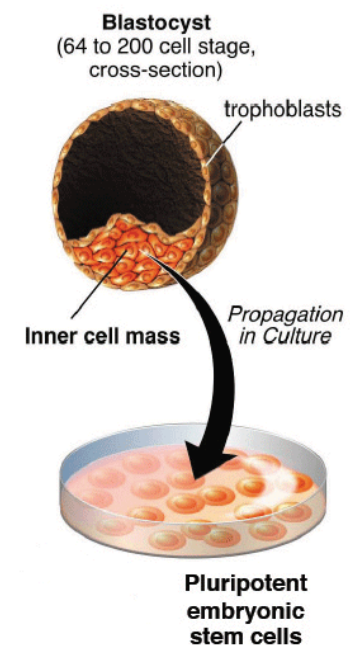
## **Focused Business Strategy**

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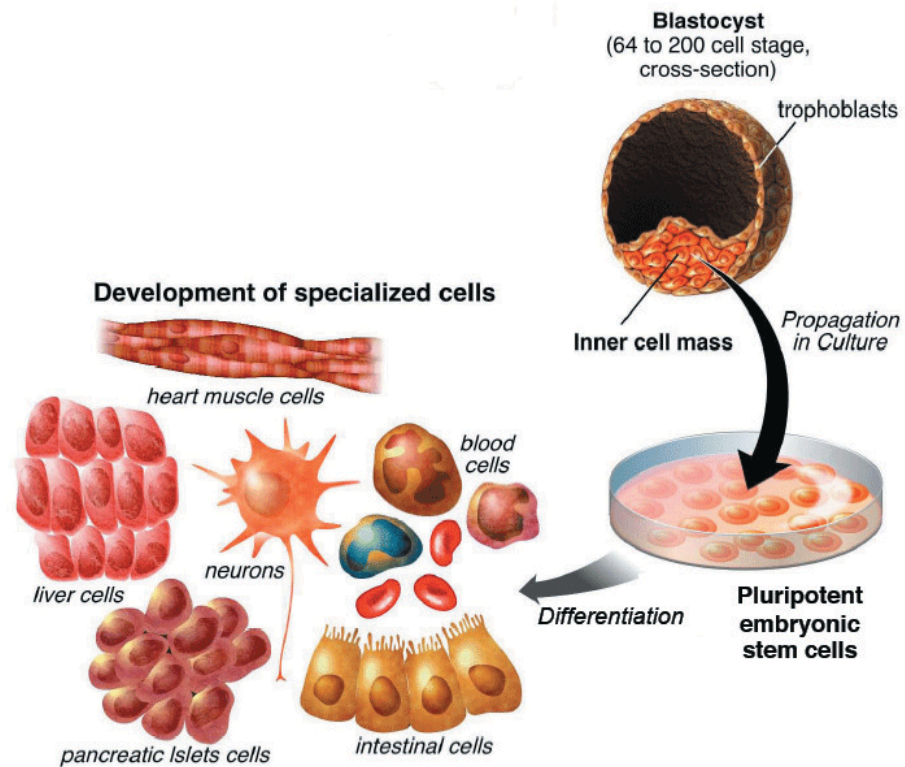
- Driving Human ES Cell Therapies to the Clinic
- Solving Immune Rejection and the Ethical Debate
- Leveraging Proprietary Technology Platform
- Expanding Collaborations and Corporate Partnerships



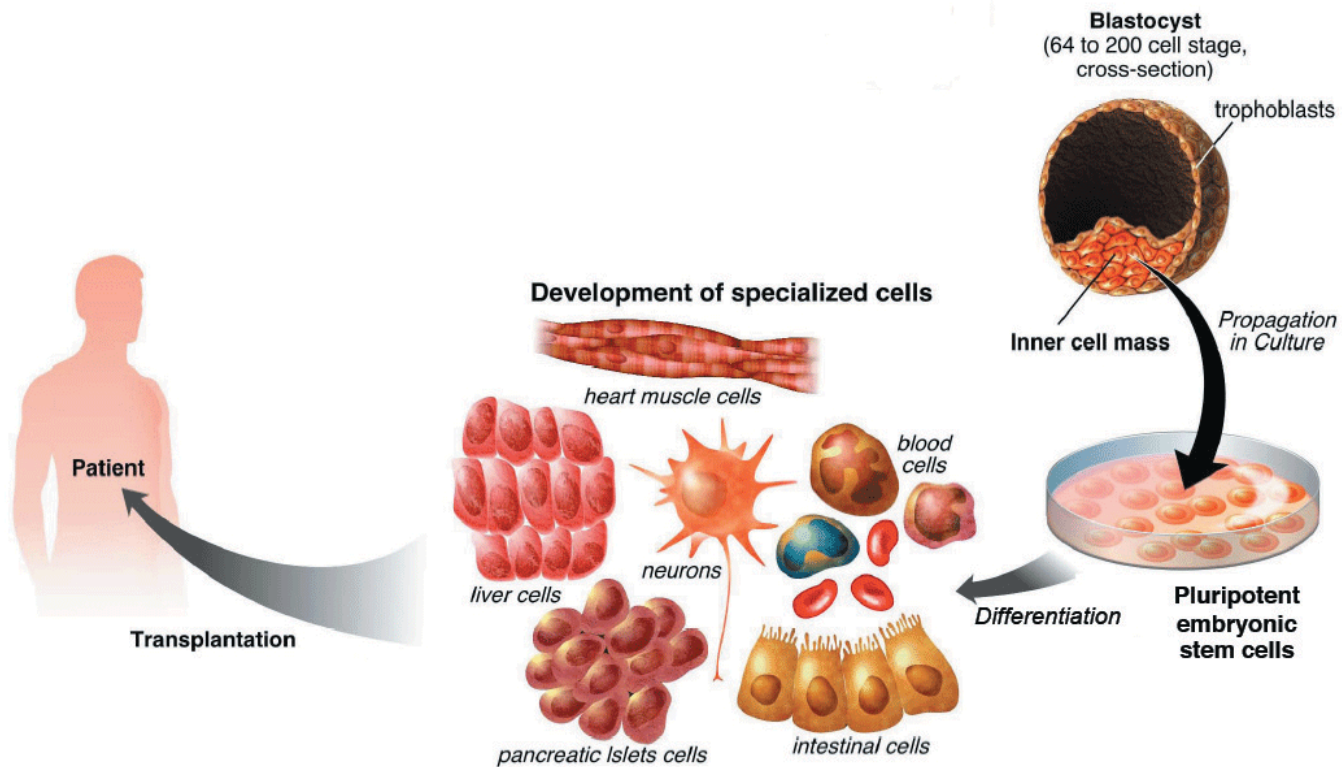
# Driving Human ES Cell Therapies to the Clinic

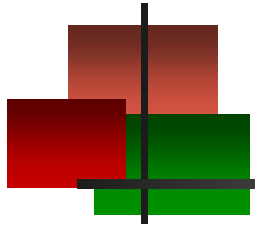


# Driving Human ES Cell Therapies to the Clinic



# Driving Human ES Cell Therapies to the Clinic

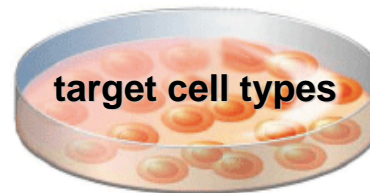




# Our Product Development Pathway

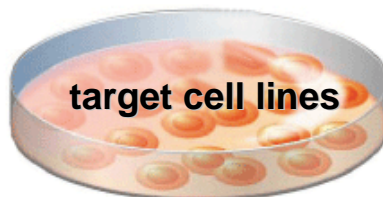
## Cell Discovery and Validation

Finding Cell Types with Therapeutic Potential  
Initial FDA Discussion for Target Indication



## “GMP” Cell Production

Derive Human ES Cells under GMP  
Differentiate Target Cell Type under GMP



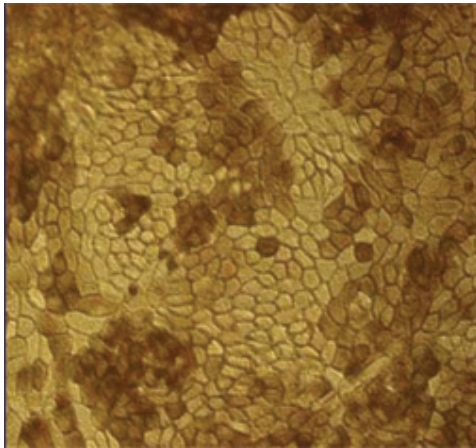
## Preclinical and Clinical Testing

Functional and Safety Preclinical Testing  
Develop Plan with FDA for Human Clinical Trials



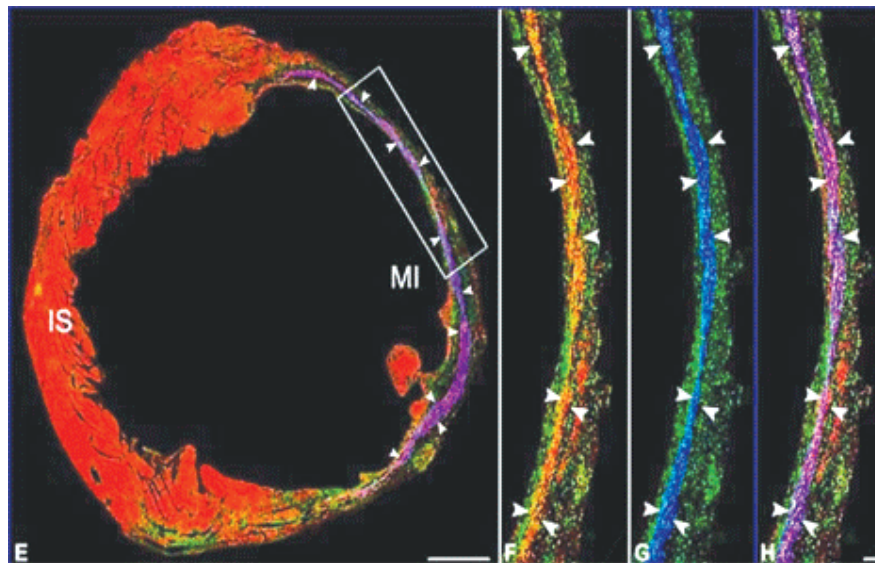
## Cell Therapy – RPE cells

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- Age-related diseases of the eye
- Over 10 million cases MDG in U.S.
- Early functional tests show therapeutic potential
- GMP cell production – next step

## Cell Therapy – Hemangioblast Cells



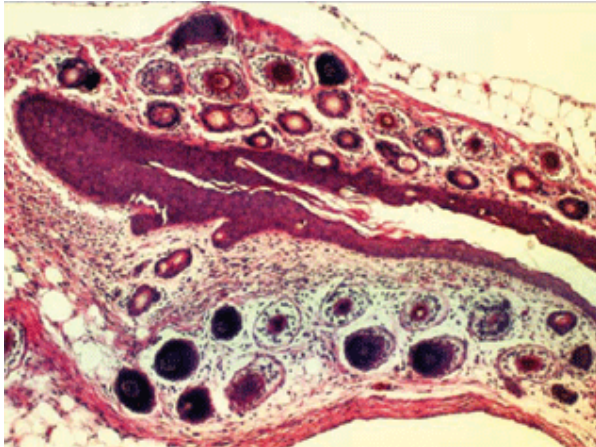
- Potential treatment for multiple cardiac and blood disorders
- Published data shows therapeutic potential in mouse model
- Large market potential
- In cell discovery now

Circulation Research 2004, 94: 820



## Cell Therapy – Dermal Cells

---



- Unique capacity of early skin cells
- Large applications in burns, wound repair and surgery
- In cell discovery now



## **Solving Immune Rejection and the Ethical Debate**

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- Two Significant Challenges to Regenerative Medicine Today
- Solving Rejection of Cell Therapies by a Patient's Immune System
- Addressing the Ethical Debate Surrounding the Derivation of Human ES Cell
- ACT Uses Proprietary Cellular Reprogramming to Address Both Challenges



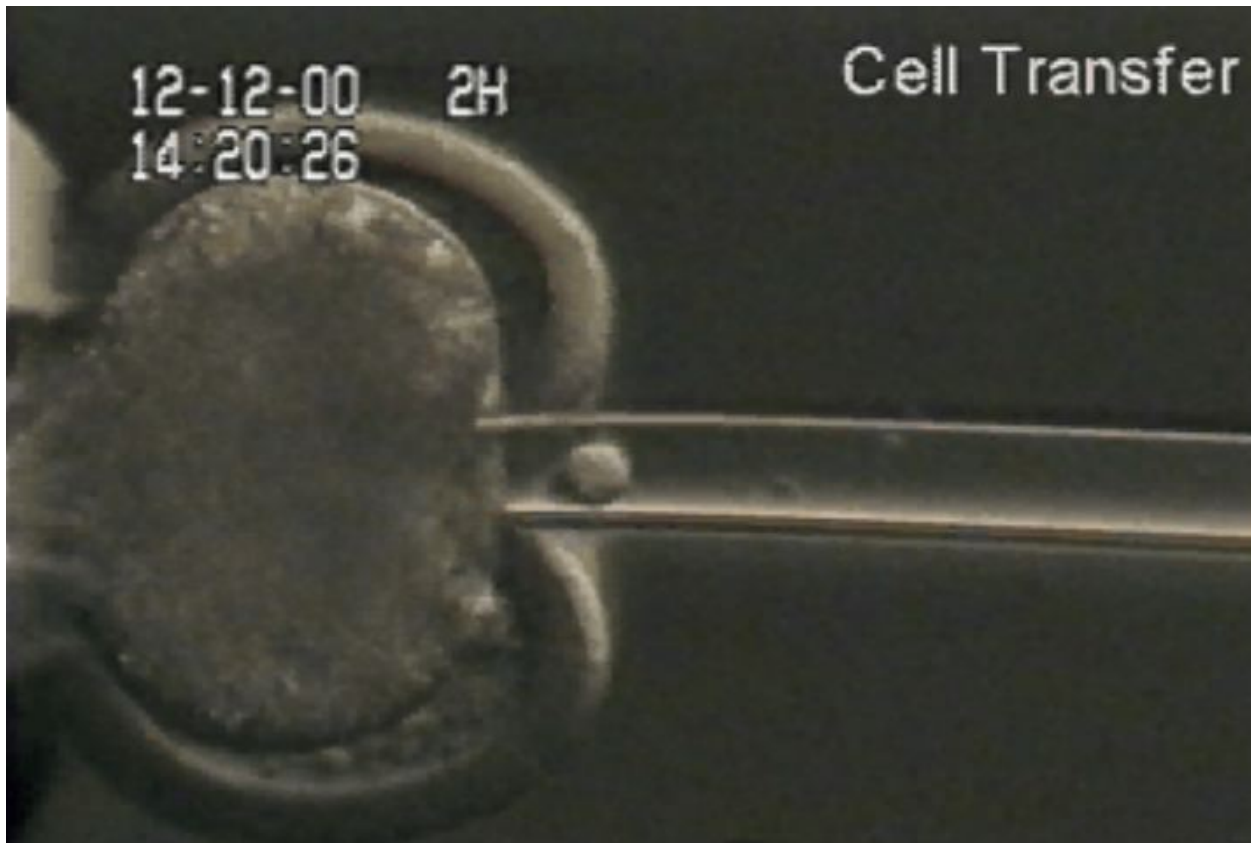
## **Solving Immune Rejection – Cellular Reprogramming for “Chronic versus Acute”**

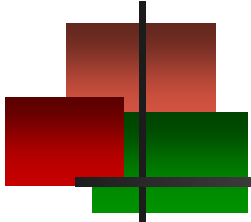
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- Chronic Diseases or Indications Requiring Custom Therapy
  - Today - Somatic Cell Nuclear Transfer (“SCNT”)
  - Tomorrow – Transdifferentiation
  - Result - a custom-tailored, patient-specific cell therapy for patient
- Acute Injuries or Indications Requiring Immediate Therapy
  - Tomorrow – Our Reduced Complexity Library (“RCL”)
  - Result – cell therapies for the immediate treatment of acute injuries which will provide a close match for most patients

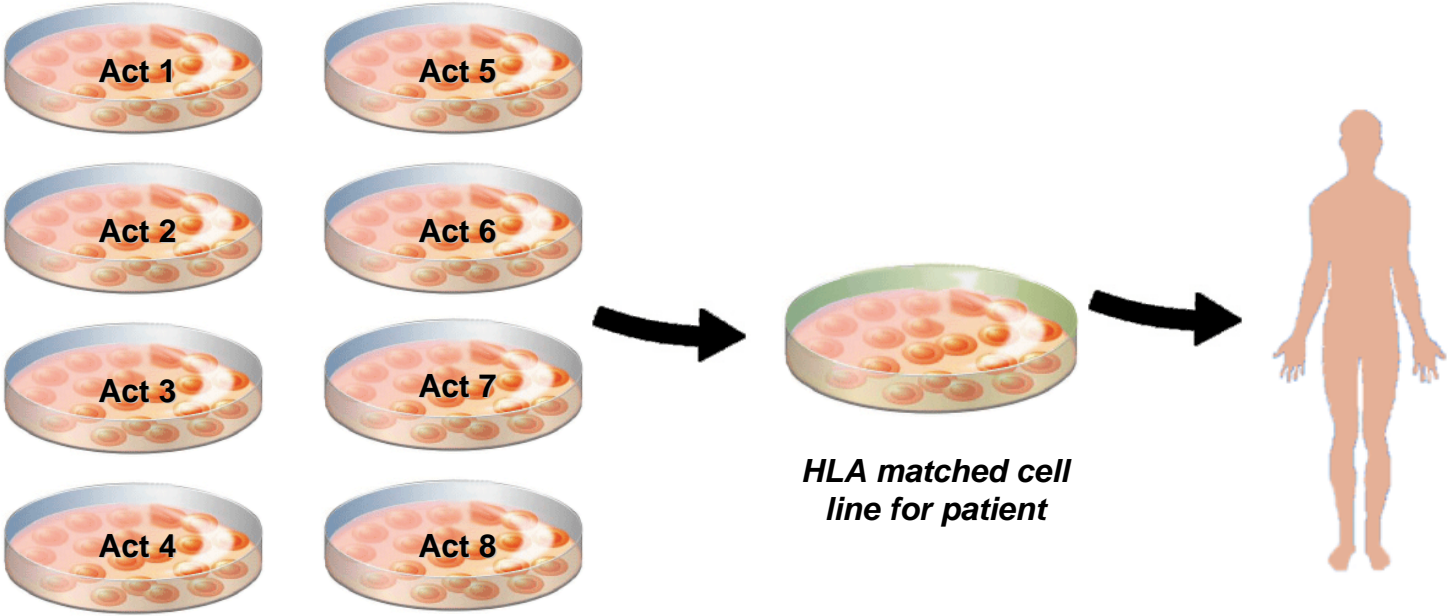


## Somatic Cell Nuclear Transfer – “SCNT”





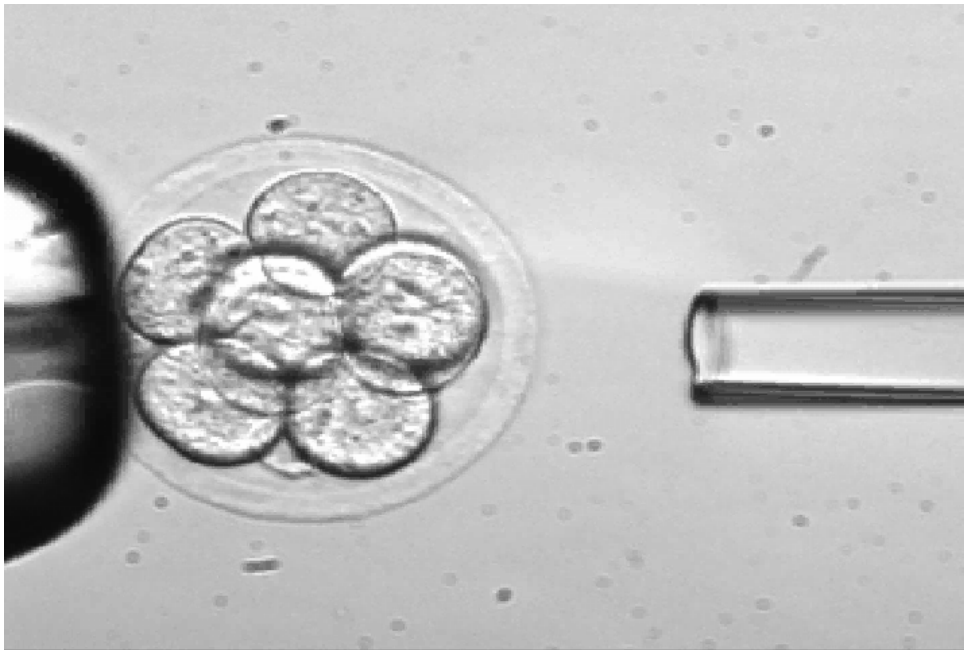
# Reduced Complexity Library



*ACT Reduced Complexity Library*



## **Strong IP in Alternative Technologies**



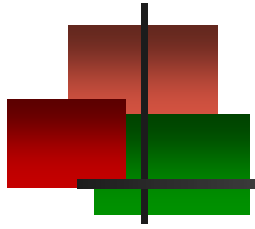
10.17.05

*Scientists Find New Ways to Derive Embryonic Stem Cells*

- Forbes

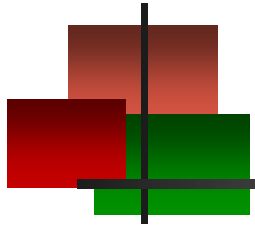
***Scientists Devise New Stem Cell Methods to Ease Concerns***

- *The New York Times*

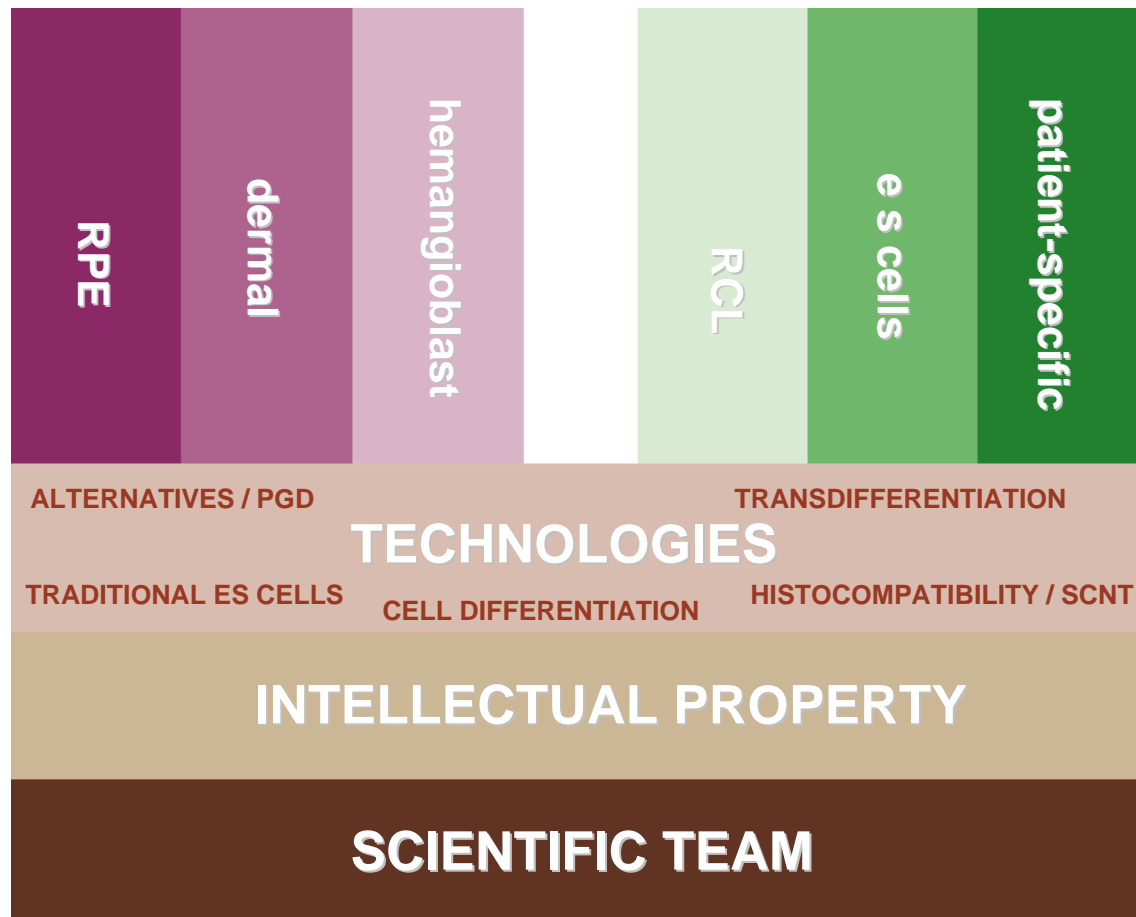


## No Damage to the Embryo





# Leveraging Proprietary Technology Platform



# Expanding Academic Collaborations and Corporate Partnerships



## Collaboration potential:

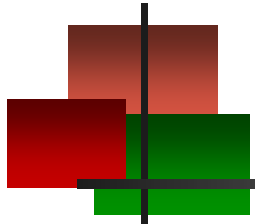
- Existing scientific and academic relationships
- CA Proposition 71
- Large BIO / Pharma



## Key Financial Information

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- Strong Cash Position of \$16 million
- Funding Status
  - Funded into 2007
  - Potential additional \$8.875 million in Convertible Notes – Funding into 2008
  - Conversion of notes at \$4.60 per share stock price
- Public Market Status
  - OTC-BB:ACTC
  - Apply for listing on Amex or NASDAQ Capital Market
  - Recent share price of \$2.10 - 2.75
  - Approximate fully-diluted market cap of \$125 - 150 million



## Senior Management Team

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Mr. William Caldwell, IV, Chief Executive Officer  
30 Year Career in Management and Finance

Dr. Michael West, Chairman, Chief Scientific Officer and President  
Founder of Geron and ACT

Dr. Robert Lanza, VP of Medical & Scientific Development  
25 Year Career in Biomedical and Scientific Research

Mr. James Stewart, SVP, Chief Financial Officer  
25 Year Career in Accounting, Finance

Mr. Jon Atzen, SVP, General Counsel  
15 Year Legal Career in Corporate and Securities Law



## 2005 Corporate Milestones - Achieved

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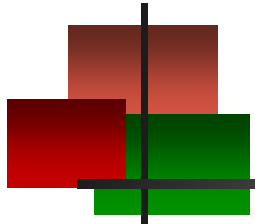
- Expanded Senior Management and Scientific Team
- Raised over \$25 million in capital
  - Series A Financing of \$8.0 million in January
  - Convertible Note Financing of \$17.75 million in September
- Formed California Collaborations
- Defined Product Areas of Focus
  - Retinal, Dermal and Hemangioblasts
- Published on Alternatives for Derivation of ES Cells – Nature 2005



## 2006 Corporate Milestones - Objectives

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- “GMP” Cell Production
  - Derive Human ES Cells under “GMP”
  - Differentiate and Scale Production of “GMP” cells
- Launch Preclinical and Clinical Plan
  - Recruit Senior Clinical Executive
  - Conduct Preclinical Testing of “GMP” cells
  - Work with FDA to expedite human clinical trials
- Expand Technology Platform with Scientific Breakthroughs
- Achieve Listing on AMEX or NASDAQ Capital Market
- Announce Corporate Partnership

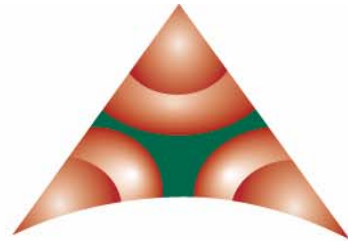


## Summary

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- A Leader in Regenerative Medicine – the Next Frontier in Medicine
- Product Focused – Driving Human ES Cell Therapies to the Clinic
- Intellectual Property - Proprietary Human ES Cell Technology
- Human Capital – Talented Team of Scientists and Management
- Financial Resources – Strong Cash Position and Public Currency

Confidential



ADVANCED **C E L L** TECHNOLOGY