



Smart Medicine.™ Right Now.™

Safe harbor

This presentation contains, and answers given to questions that may be asked today may constitute, forward-looking statements that are subject to a number of risks and uncertainties, many of which are outside our control. All statements regarding our strategy, future operations, financial position, estimated revenues or losses, projected costs, prospects, plans and objectives, other than statements of historical fact included in our prospectus, are forward-looking statements. When used in this presentation or in answers given to questions asked today, the words "may," "will," "could," "would," "expect," "intend," "plan," "anticipate," "believe," "estimate," "project," "potential," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. You should not place undue reliance on forward-looking statements. While we believe that we have a reasonable basis for each forward-looking statement that we make, we caution you that these statements are based on a combination of facts and factors currently known by us and projections of future events or conditions, about which we cannot be certain. Important factors that could cause our actual results to differ materially from those expressed or implied by the forward-looking statements are included under "Risk Factors," "Special Note Regarding Forward-Looking Statements" and elsewhere in our prospectus filed with the Securities and Exchange Commission on July 17, 2006. These cautionary statements qualify all of the forward-looking statements. In addition, market and industry statistics contained in this presentation are based on information available to us that we believe is accurate. This information is generally based on publications that are not produced for purposes of securities offerings or economic analysis.

All forward-looking statements speak only as of the date of this presentation. Except as required by law, we assume no obligation to update these forward-looking statements publicly or to update the factors that could cause actual results to differ materially, even if new information becomes available in the future.

Company Highlights

- One product on the market – 80% growth rate - over 15,000 patients treated
- Six indications in the clinic
- Three indications in Phase III trials, with FDA Fast Track status
- Excellent safety profile established in 7 Phase I and II human clinical trials
- Practical business model that supports large scale production
- Premier intellectual property position – 47 issued patents

Clinical Pipeline

		Products			
	Indications	Preclinical	Phase I	Phase II	Phase III
<i>Prochymal</i> TM	Steroid Refractory GvHD	FDA FAST TRACK			
<i>Prochymal</i> TM	Crohn's Disease	FDA FAST TRACK			
<i>Prochymal</i> TM	Acute GvHD	FDA FAST TRACK			
<i>Chondrogen</i> TM	Arthritis				
<i>Prochymal</i> TM	Type 1 Diabetes				
<i>Prochymal</i> TM	Acute MI				
<i>Prochymal</i> TM	COPD				
<i>Osteocel-XC</i> TM	Focal Bone Regeneration				
<i>Prochymal</i> TM	Acute Radiation Syndrome	Animal Rule			

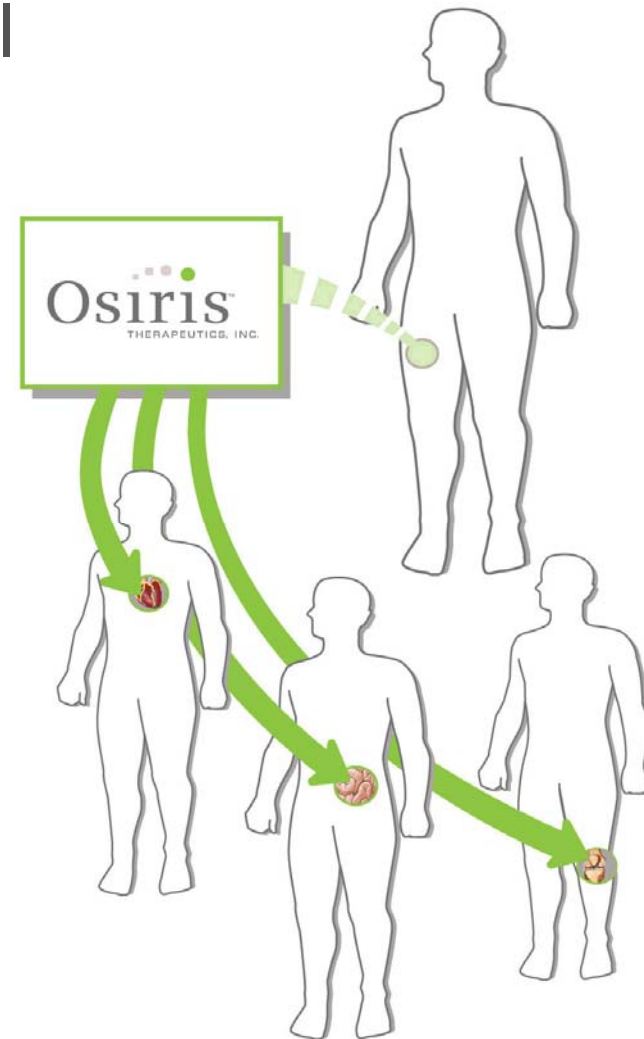
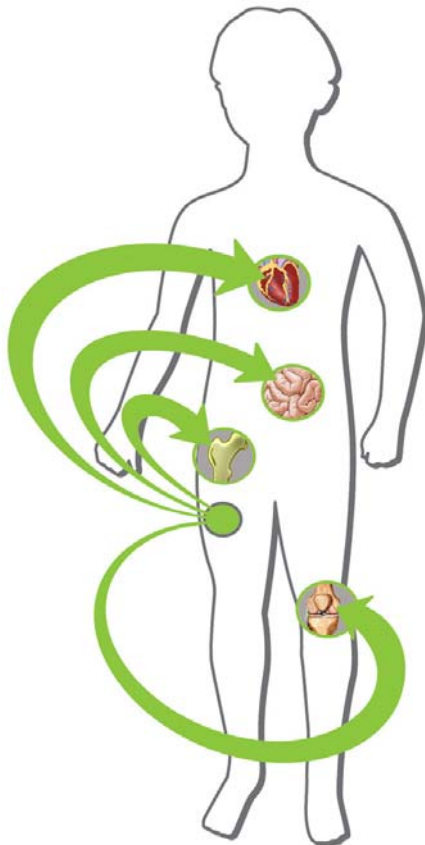
The Mesenchymal Stem Cell



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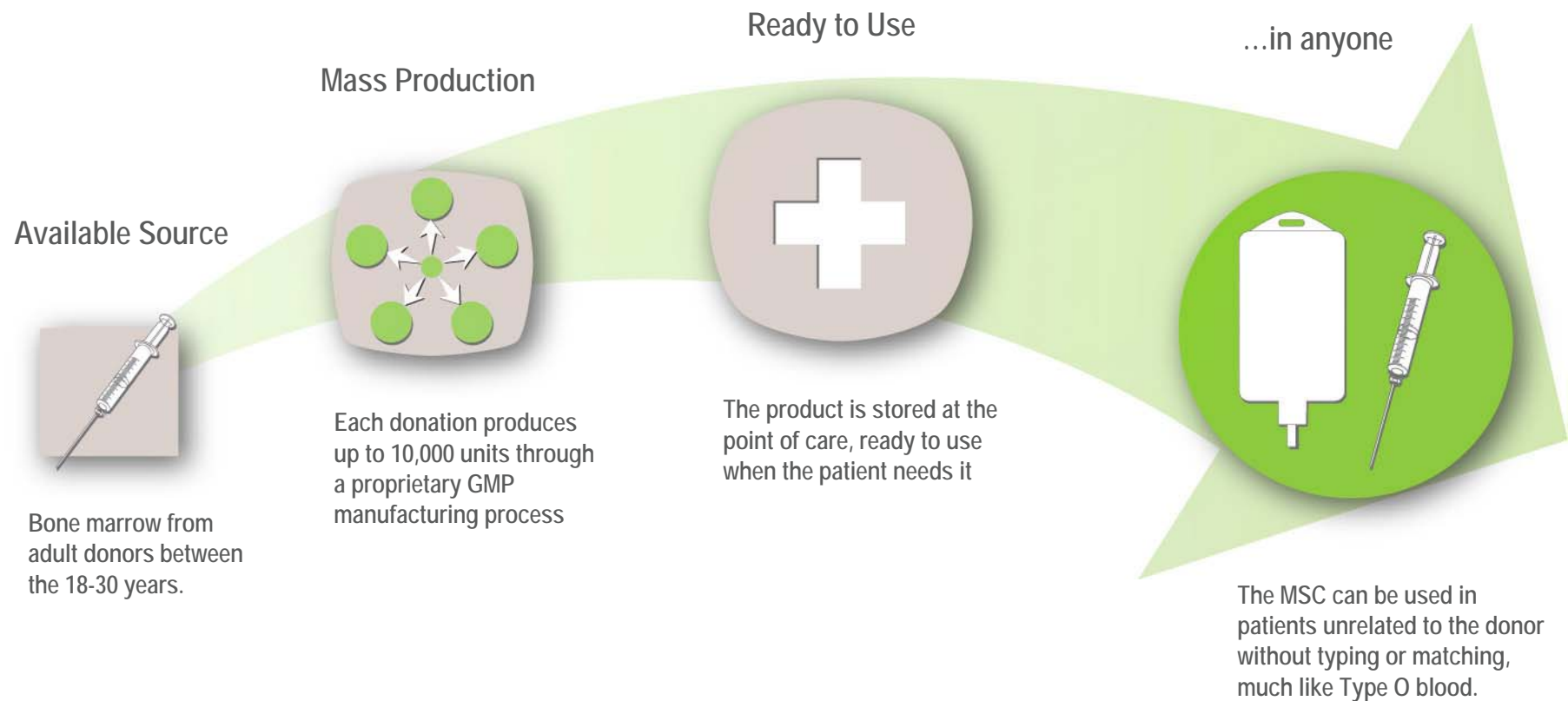
The Mesenchymal Stem Cell

Mesenchymal stem cells are responsible for repairing damage to connective tissues and for controlling inflammatory processes.

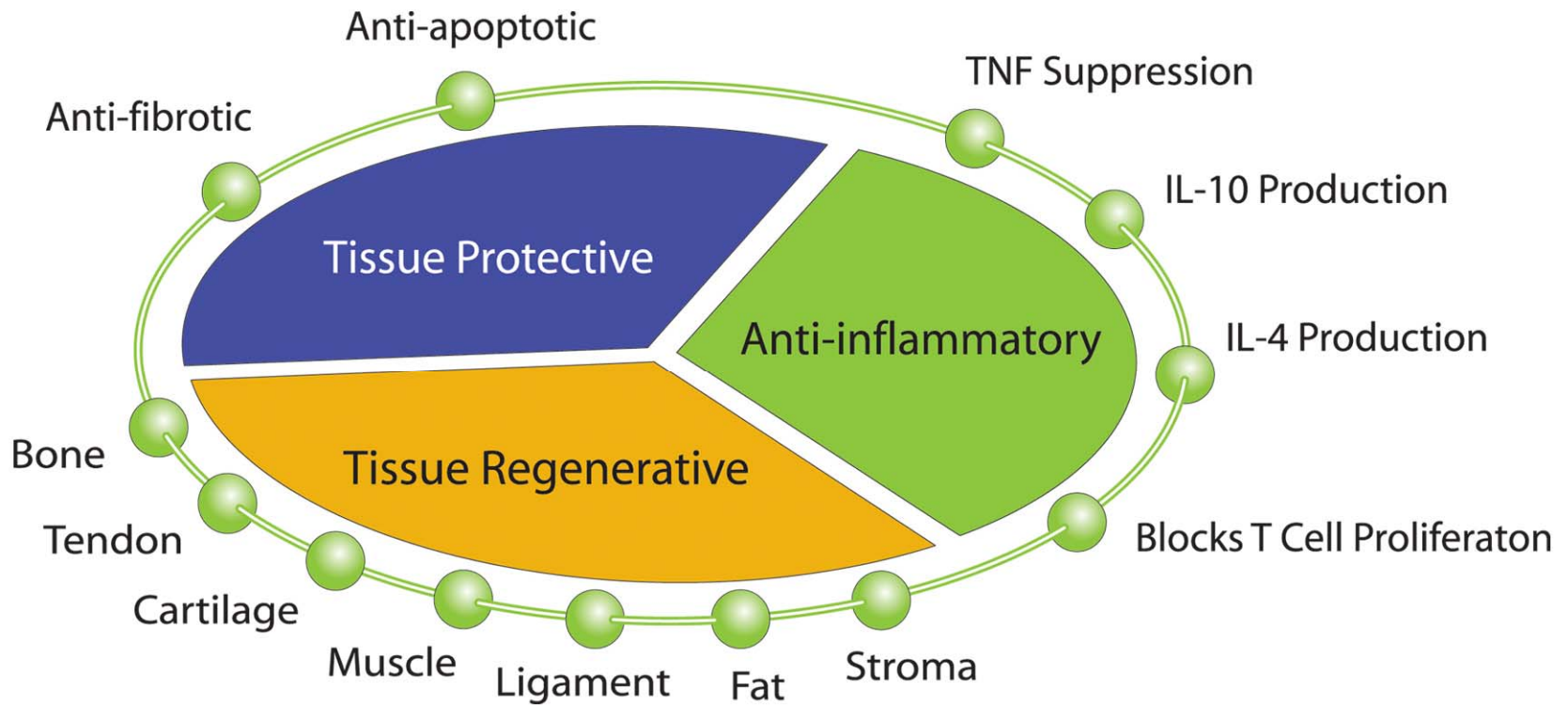


Osiris makes large numbers of these cells available to assist with the healing of inflammatory and connective tissue disorders.

A Real World Therapeutic Model



Mesenchymal Stem Cell Activity



Product Offering



Formulation and delivery method optimized for specific indications

Osteocel[®]

(multipotential cellular bone matrix)

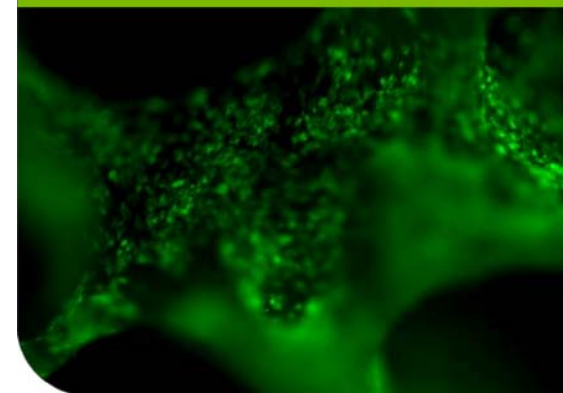
- For the regeneration of bone tissue
- Only product to have proven osteogenic potential
- **Over 15,000 patients treated**



Easy Handling Characteristics

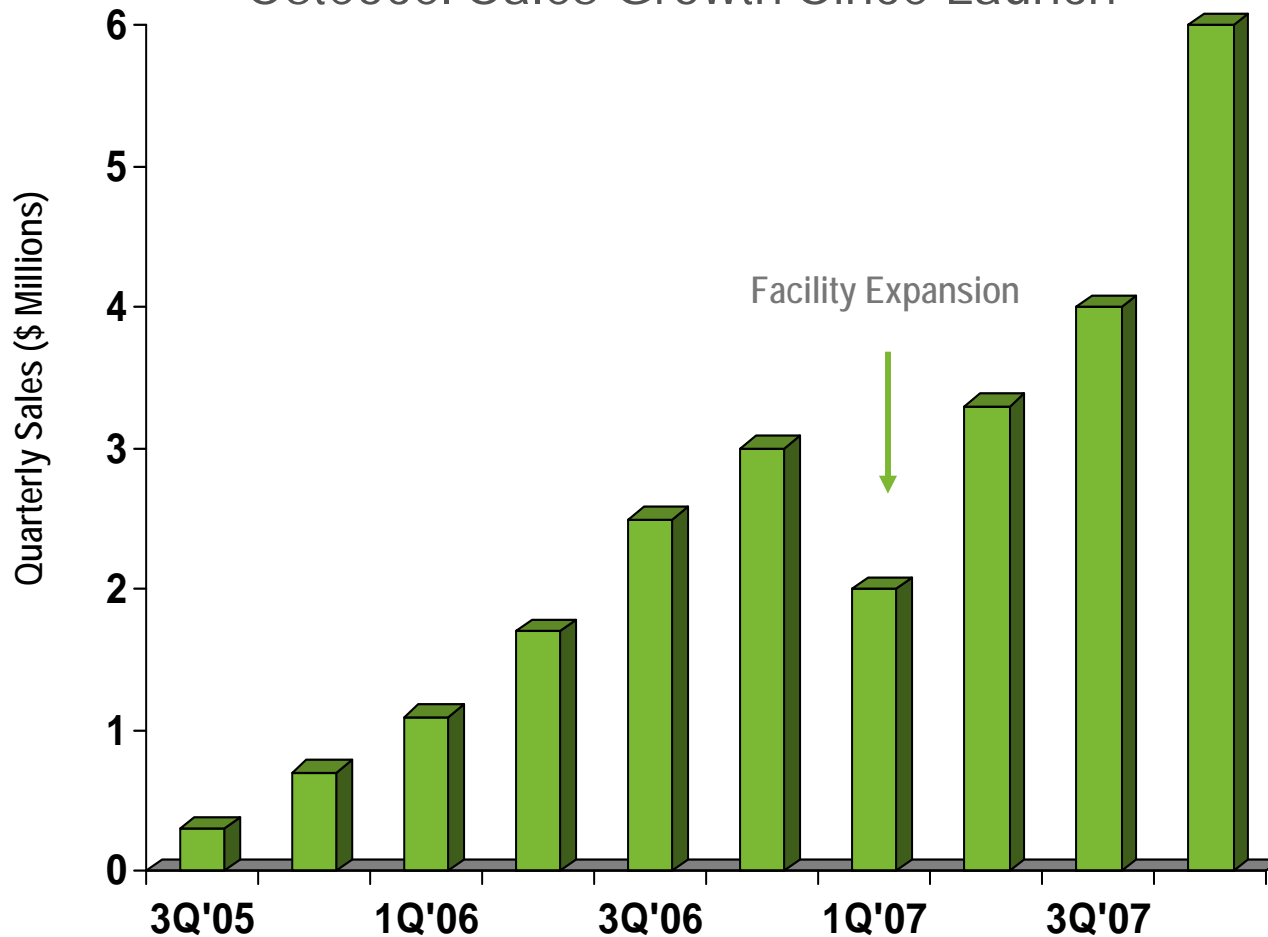


Proven Cell Viability



Osteocel[®]

Osteocel Sales Growth Since Launch



- Strong Demand
- 50-55% GM
- No Selling Costs
- Minimal G&A
- Generates Cash

Prochymal™



Safety Profile

- Studied in over 300 patients
- 46 study toxicology package accepted by FDA
- All safety endpoints met in each of 7 separate Phase I and II clinical trials
- No acute or infusional toxicity associated with primary or repeat administration
- Broad demographic – males and females ranging from 4 months to 85 years
- Dose range: up to **20 consecutive administrations**

GvHD is a significant unmet medical need

- Approximately 50% of bone marrow transplant patients develop GvHD
- GvHD is a severe immunological reaction between the donated bone marrow and the recipient
 - Involves skin, liver and GI system
- There is no approved treatment for GvHD
- Approximately 80% of patients with severe refractory GvHD die.



Clinical Results in GvHD

Phase II Acute GvHD

- 32 patient, treatment of acute GvHD (grade II-IV)
- Response Rate (CR+PR): 94% (29/31)
- **Complete Remission: 77% (24/31)**

Skin Involvement

- 100% (13/13) responded (CR+PR)
- **85% (11/13) Complete Response**

GI Involvement

- 89% (16/18) responded (CR+PR)
- **72% (13/18) Complete Response**

Compassionate Use

- 12 end-stage pediatric patients
- Life-threatening GvHD
- Response Rate (CR+PR): 100% (12/12)
- **Complete Remission: 58% (7/12)**

GI Involvement

- Strong response in patients experienced severe GI GvHD:
 - **75% (9/12) Complete Response**

Safety

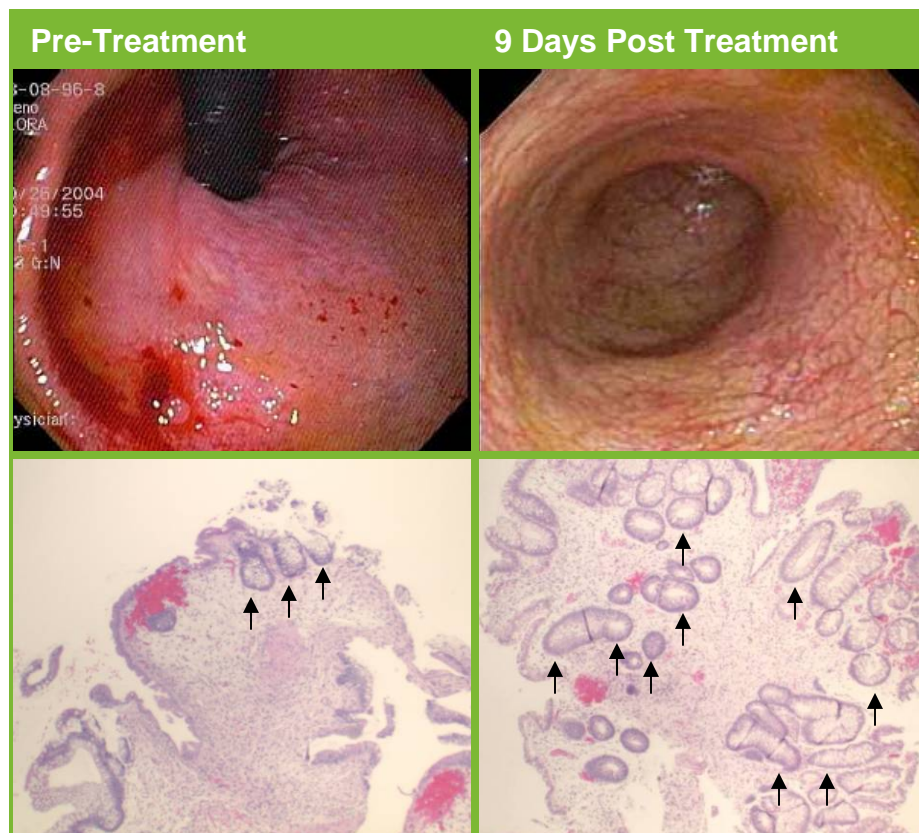
- The infusion of Prochymal was safe and well tolerated during all infusions

Successful treatment of GvHD



MSCs are Responsive to their Environment

Endoscopic view of the colon and corresponding histology in a patient with Grade IV GI GvHD



Anti-Inflammatory

Regenerative

Decrease in intestinal inflammation and ulceration at 9 days with corresponding crypt regeneration as depicted by the arrows.

Phase II Clinical Evaluation Prochymal™ in Treatment-Resistant Crohn's Disease

Trial Design

- 10 patient, prospective, randomized, open label trial
- Average CDAI was 350
- Average length of disease was 14 years
- Failed previous treatment with steroids, methotrexate, and Remicade

Efficacy Results

- Every patient evaluated had a reduction in disease severity by day 28
- Statistically significant reduction in disease severity
 - **105 point improvement in CDAI (p=0.004)**
 - Rapid improvement, with a 62 point CDAI reduction by day 7
 - **Significant improvement in IBDQ scores by day 28 (113 to 146, p=0.008).**

Safety Results

- No attributed SAE's
- **Well tolerated - outpatient administration (20-70 min)**

Acute Radiation Syndrome



- Prochymal and ARS
 - Radiation injury can involve: cutaneous, intestinal, and hematopoietic systems
 - Preclinical studies show improvement in each area
 - Prochymal has also demonstrated clinical improvement in each organ system

- Defense Department Contract
 - Open, competitive selection process
 - \$224.7 million for the development and stockpile of Prochymal for ARS
 - Up to \$24.7 million for development, as needed
 - Purchase options for 20,000 doses at \$10,000 per dose upon FDA registration

Earlier Stage Clinical Development

Acute Myocardial Infarction

- MSCs block fibrosis post MI, prevent arrhythmia and mechanical dysfunction
- 53 patient double-blind, placebo controlled trial
- **Reduced ventricular arrhythmia (9% vs. 37%, p=0.025)**
- **Patient Condition - 42% improved vs. 11% with placebo (p=0.027)**

Type 1 Diabetes

- Allogeneic MSCs block lymphocyte infiltration and islet cell destruction
- Initiating Phase II trial for the prevention of progression of T1D
- **Received \$4 million grant from JDRF**

Chronic Obstructive Pulmonary Disease (COPD)

- MSCs down regulate inflammation and block fibrosis in the lung
- **Phase I AMI data showed a 17 point improvement in FEV1 %Predicted (p<0.05)**
- Entering Phase II

A New Platform for Serious Unmet Medical Needs

