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the regenerative medicine company

Leading the world in novel adult stem cell therapies

Annual General Meeting
24 November 2011

Silviu Itescu
Chief Executive

Forward looking statements

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This presentation, including any comments made during or following the presentation, may contain forward-looking statements that are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. These statements may relate to, but are not limited to: expectations regarding the safety or efficacy of, or potential applications for, Mesoblast's adult stem cell technologies; expectations regarding the strength of Mesoblast's intellectual property, the timeline for Mesoblast's regulatory approval process, and the scalability and efficiency of manufacturing processes; expectations about Mesoblast's ability to grow its business and statements regarding its relationship with Cephalon and future benefits of that relationship; statements concerning Mesoblast's share price or potential market capitalization; and statements concerning Mesoblast's capital requirements and ability to raise future capital, among others. Actual results may differ from the results anticipated in these forward-looking statements, and the differences may be material and adverse. Factors and risks that may cause Mesoblast's actual results, performance or achievements to be materially different from those which may be expressed or implied by such statements, include, without limitation: risks inherent in the development and commercialization of potential products; uncertainty of clinical trial results or regulatory approvals or clearances; government regulation; the need for future capital; dependence upon collaborators; and protection of our intellectual property rights, among others. Accordingly, you should not place undue reliance on these forward-looking statements.

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Investment snapshot

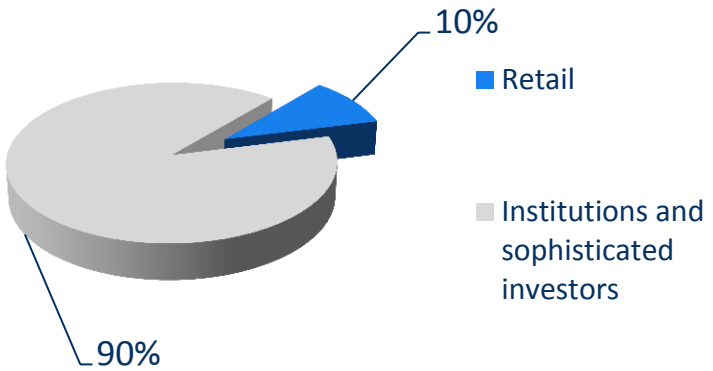
Mesoblast is a public company, listed on the Australian Securities Exchange since 2004.

It is included in the S&P/ASX 200 Index.

Issued shares	**280m**
Current share price	A$6.64
Cash available (approx)	A$256m
Market capitalization	A$1,860m

Results *($m except per share data)*	**2011**	**2010**
Total revenue & other income	120.9	0.8
Operating expenses		
R&D	15.3	7.6
Management	11.8	3.6
Other	1.5	4.4
Profit / losses (before tax)	92.2	(14.8)
EPS basic – cents per share	41.8	(10.5)
EPS diluted – cents per share	39.8	(10.5)

Mesoblast ownership



2011 - major accomplishments

- strategic alliance with Cephalon Inc. for selected product commercialization
- strategic alliance with Lonza for long-term manufacturing capacity
- expanded cardiovascular franchise to cover heart failure, heart attack and chronic angina
- completed congestive heart failure Phase 2 trial, special presentation at American Heart Association meeting
- expanded spine franchise: commenced degenerative disc repair Phase 2 trial , complements ongoing Phase 2 spinal fusion trials
- successful pre-clinical Type 2 diabetes study, ready to begin first Phase 2 trial for intravenous product
- commenced Phase 2 trial in wet age-related macular degeneration
- commenced Phase 3 trial in bone marrow transplantation

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Our proprietary adult stem cells

- potent, purified adult mesenchymal precursor cells
  - strong safety profile – no immune reactions
  - avoid ethical and safety issues associated with embryonic stem cells
  - backed by strong patent position

- "off the shelf" – classic pharmaceutical drug model
  - batch to batch consistency
  - clear, rapid regulatory pathway

- easy to expand in large numbers
  - low cost of goods, no supply constraints
  - high margin business model

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Building a successful biologics life sciences company: understanding and managing corporate risk

- Platform technology delivers multi-product pipeline
  - Multiple shots on goal
  - Not dependent on success of any one product
- Corporate partnerships manage execution risk
  - Teva/Cephalon provides global distribution capability
  - Teva/Cephalon funding of Phase 3 trials alleviates internal cash burn
  - Teva/Cephalon team brings regulatory and clinical trial experience
  - Lonza provides best-in-breed process development & manufacturing capability, alleviates internal need to spend on manufacturing facility
- Strong cash position enables simultaneous development of multiple products
  - Mesoblast has sufficient cash to advance new programs in parallel
  - Investment in people with expertise in clinical development
- Staged development program controls technical risk
  - managed transition from simple to complex indications and delivery modes
  - build on strong foundations (R&D/pre-clinical data)

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The Mesoblast value proposition – the three pillars

The Teva alliance

- delivers proven execution capability in major global markets
- drives clinical programs in key therapeutic areas – experienced team
- cash from milestone payments to fund Mesoblast pipeline

Orthopedic pipeline

- intervertebral disc repair
- spinal fusion
- stress fractures

Intravenous product pipeline

- Type 2 diabetes
- inflammatory diseases of various tissues (eg lungs)
- immunologic conditions (eg rheumatoid arthritis)

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Teva (Cephalon) strategic alliance

- Teva/Cephalon received exclusive worldwide commercialization rights to selected cardiovascular and neurologic indications
- Teva/Cephalon responsible for funding Phase 2b and Phase 3 clinical development
- Mesoblast received upfront fee of US$130 million, *plus* eligible for up to US$1.7 billion in milestone payments, *plus* revenue split, retains all manufacturing rights
- Teva/Cephalon acquired 19.99% stake in Mesoblast for $243m outlay
- Mesoblast cash balance of $256 million to fund other major indications including
  - Diabetes
  - inflammatory diseases of various tissues (eg lungs)
  - immunologic conditions (eg rheumatoid arthritis)
  - ophthalmic indications
  - orthopedic cartilage and bone conditions
- Teva acquisition of Cephalon a major further validation of Mesoblast's technology and product pipeline

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Global manufacturing alliance is central to profitability

State-of-the-art manufacturing plant via strategic alliance with Lonza

- Lonza will supply clinical and long-term commercial MPC product needs globally
- Lonza to construct a purpose-built manufacturing facility exclusively for Mesoblast
- Mesoblast can buy out this facility at a pre-agreed purchase price
- Mesoblast will have exclusive access to Lonza's cell therapy facilities in Singapore

Mesoblast retains control of manufacture for all products

- product delineation for distribution partners
- maintain optimal product pricing differences

Commercial benefits

- reduced COGS, increased margins on sales price
- state-of-the-art, industrialized manufacturing process
- R&D support for enhanced second generation products
- leverage new technologies

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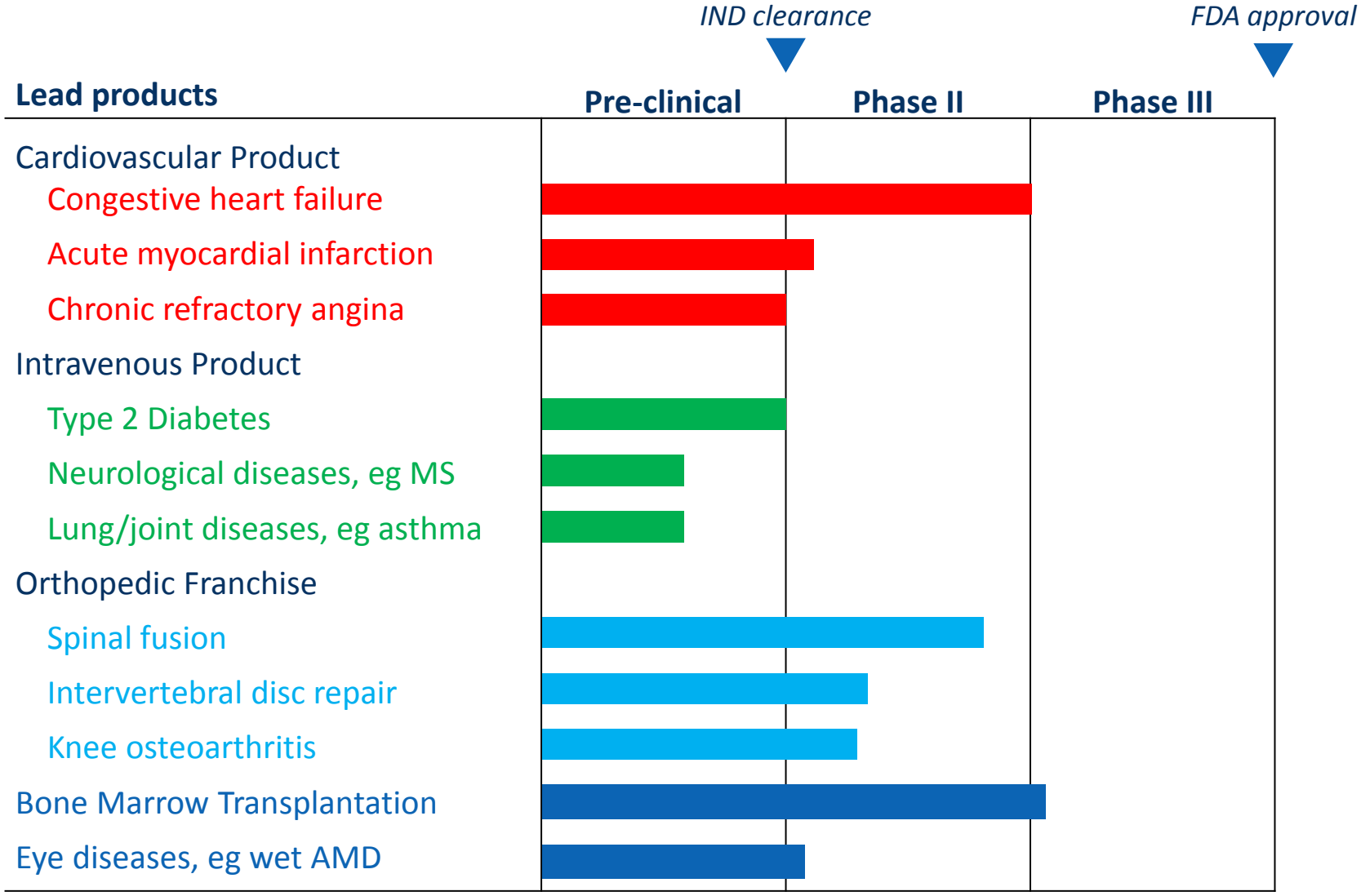
“Off-the-shelf” product franchises driving value creation



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Cardiovascular franchise – congestive heart failure (CHF)

- 60 patient multi-center, randomized, controlled Phase 2 trial
- Class II-IV CHF, ejection fraction < 40% (high 6- and 12-month mortality)
- randomized 3:1 controls to MPCs at 25M, 75M or 150M cell doses
- cells injected by J&J NOGA Myostar™ catheter – single injection

- primary stated endpoint of trial was safety and feasibility
- primary endpoint successfully met, no adverse events associated with MPCs at any dose
- no clinically relevant immune responses to donor cells

prevalence 6.2 million in US, > 670,000 new patients annually

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Congestive Heart Failure – American Heart Association Annual Meeting 2011: Phase 2 trial successfully met the only endpoints FDA accepts for Phase 3 approval

> "In general, Phase 3 studies should use endpoints such as mortality and cardiovascular or heart failure hospitalizations, whereas endpoints, such as ejection fraction, that have not been validated as surrogates for clinical outcome are not considered to be acceptable as primary efficacy endpoints for pivotal trials."
>
> *US FDA, Guidance for Industry, Cellular Therapy for Cardiac Disease October 2010*

- Major Adverse Cardiac Events (MACE, defined as cardiac death, heart attack or revascularization procedure) significantly reduced in MPC-treated patients over mean 22 months follow-up (p=0.036)
- MACE risk over time reduced by 78% in MPC-treated patients vs controls (p=0.011), with 60-90% risk reduction seen at every MPC dose
- Cardiac mortality significantly reduced in MPC-treated patients compared with controls over a mean follow-up of 22 months (2% vs 20%, p=0.02)
- Highest dose of Revascor™ completely prevented any deaths or episodes of heart failure hospitalization over 18 months of follow-up
- High dose group showed evidence of remodeling (reduction in heart volumes) and improvement in functional capacity (increased walking distance), which are key parameters in congestive heart failure
- Revascor™ anticipated to progress to Phase 3 trial in first half of 2012

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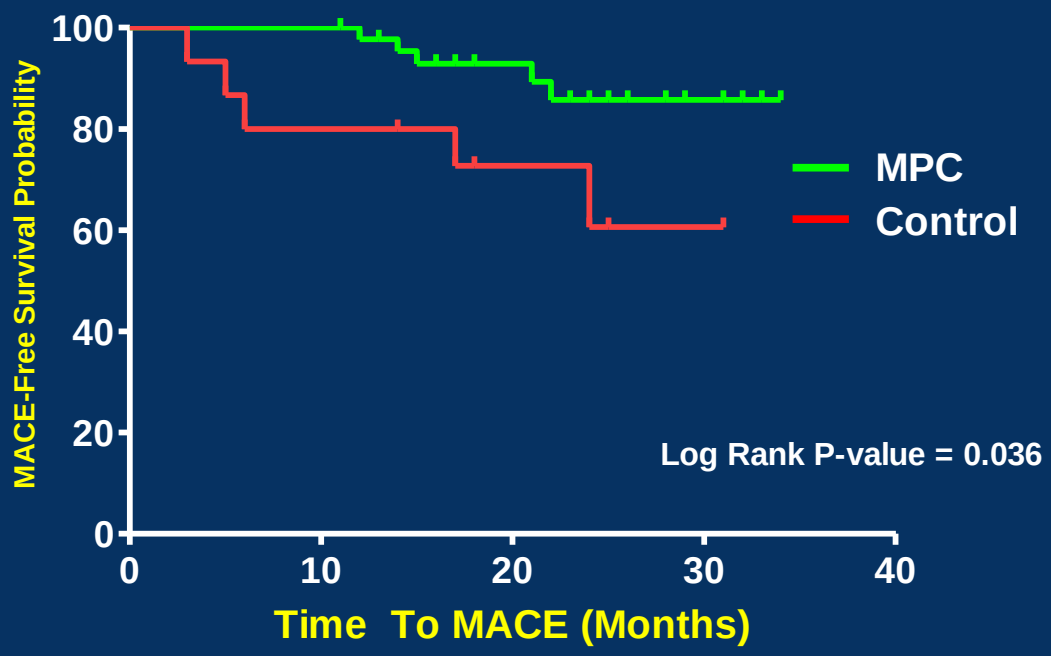
MACE: All Subjects



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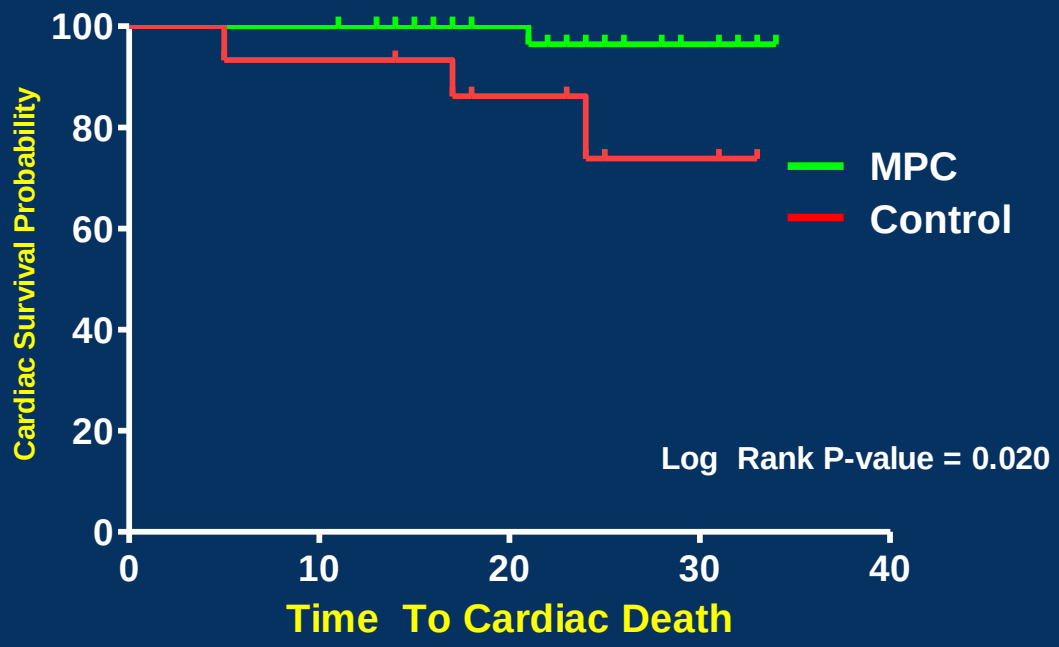
Cardiac Death: All Subjects



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Intravenous franchise – preclinical development

- high value product using systemic administration
- applications:
  - Type 2 diabetes
  - Lung diseases (inflammatory conditions, asthma)
  - Osteoporosis
  - Inflammatory joint diseases (rheumatoid arthritis)
  - Neurological diseases (MS)
- we are generating compelling preclinical data in each of these areas to support early commencement of Phase 2 human trials
  - “best in breed” preclinical models, high predictive value

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Intravenous franchise – Type 2 Diabetes Pre-Clinical Study

- 17 non-human primates with obesity and Type 2 diabetes
- dose-ranging study evaluating effect of single intravenous injection of Mesoblast's allogeneic MPCs over eight weeks
- controls (n=3) received a single saline injection, four groups of treated subjects (3-4 per group) received one of 4 escalating doses of MPCs (0.1, 0.3, 1 and 2 million MPCs/kg).
- fasting blood glucose and C-reactive protein (CRP) measured at 0, 2, 4, 6, 8 weeks

CRP > 3mg/dL is a major established risk factor for heart attacks and death in Type 2 Diabetics

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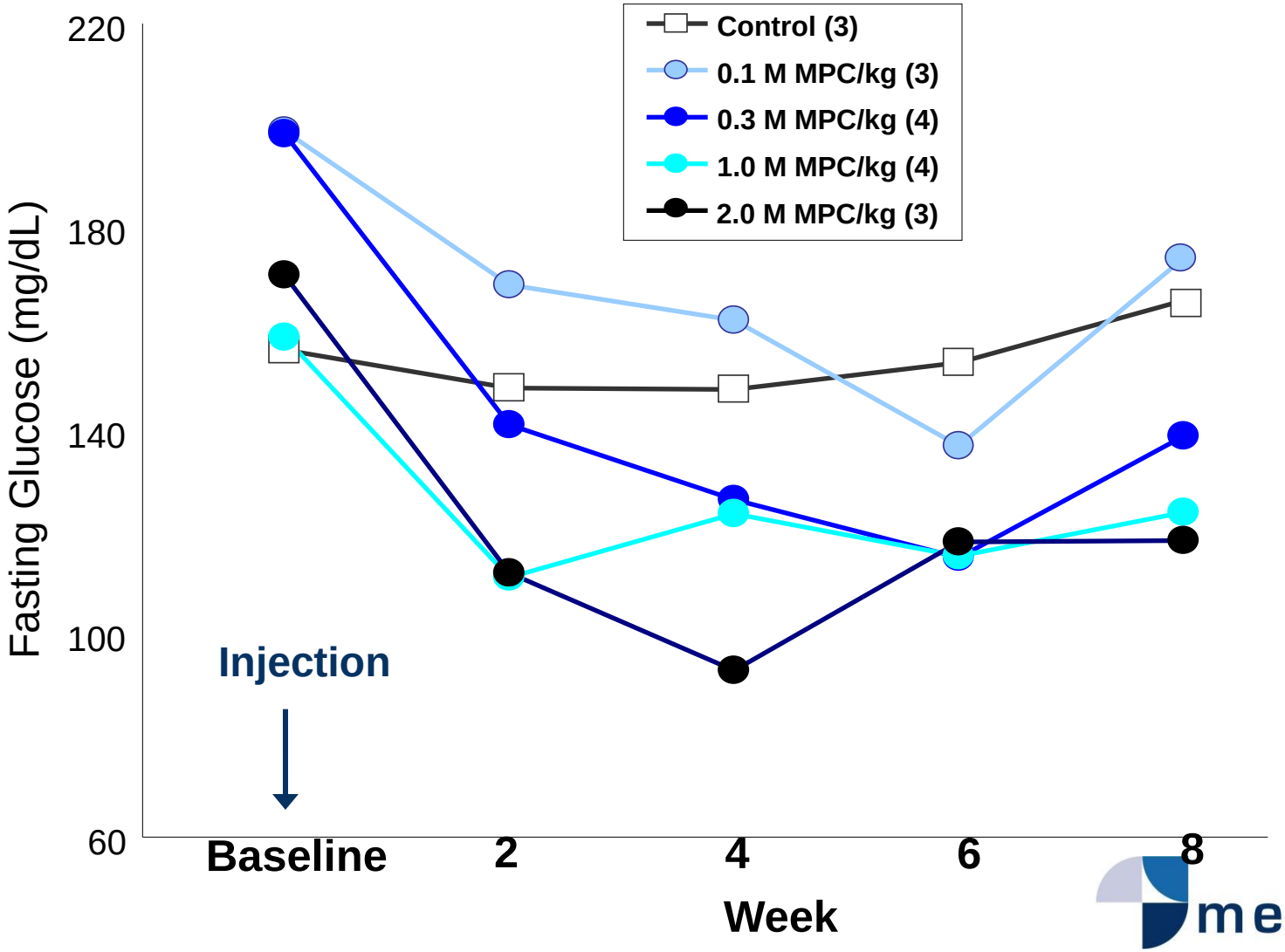
Effect of MPC or Saline Injection on Fasting Glucose in Nonhuman Primates With Type 2 Diabetes



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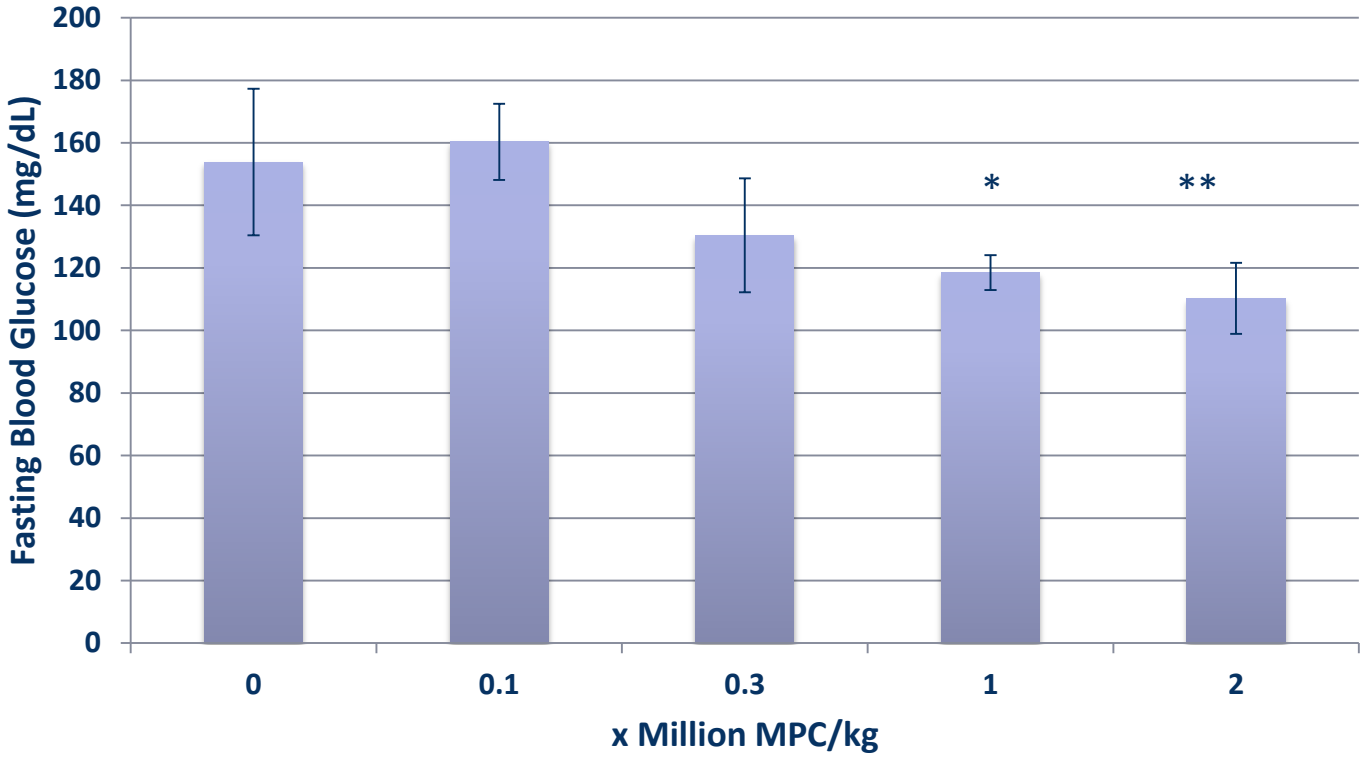
Dose-Dependent Effect Of Single Intravenous MPC Injection On Mean Fasting Blood Glucose Levels Over Eight Weeks



*** P<0.05 compared to controls***

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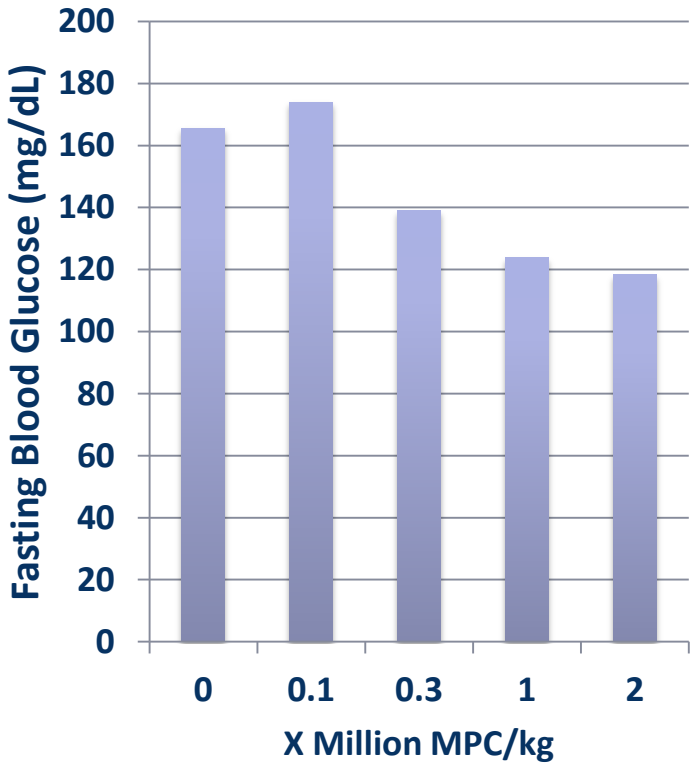
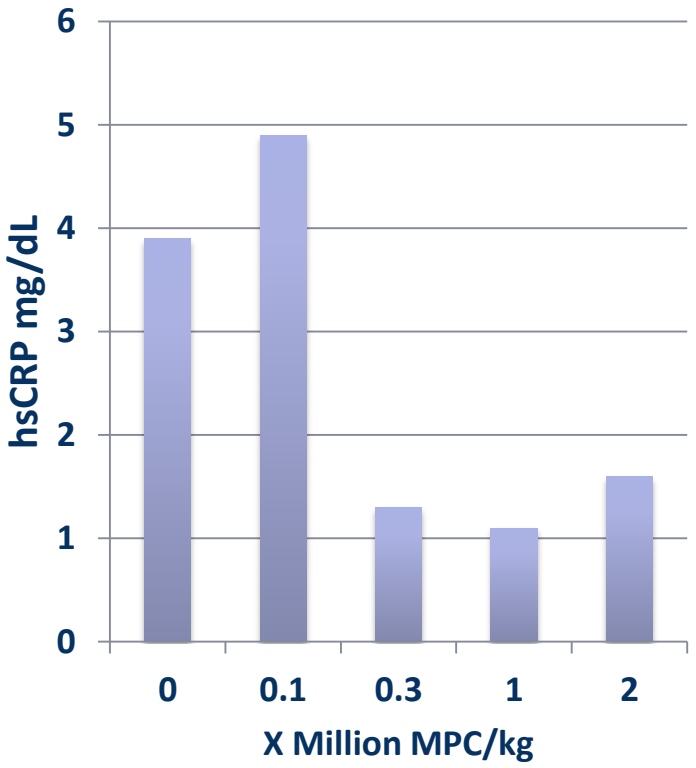
Dose-Dependent Effects On Blood Glucose And CRP Levels Eight Weeks After A Single Injection Of Allogeneic MPCs: Are MPCs Cardioprotective In Type 2 Diabetes?





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Value inflexion points – near term

- completion of Phase 2 heart failure trial - progression to Phase 3 pivotal trial
- completion of orthopedic Phase 2 spinal fusion trials
- completion of disc repair Phase 2 trial
- moving diabetes into Phase 2 trials
- building the intravenous franchise
- further partnering opportunities – optimal timing

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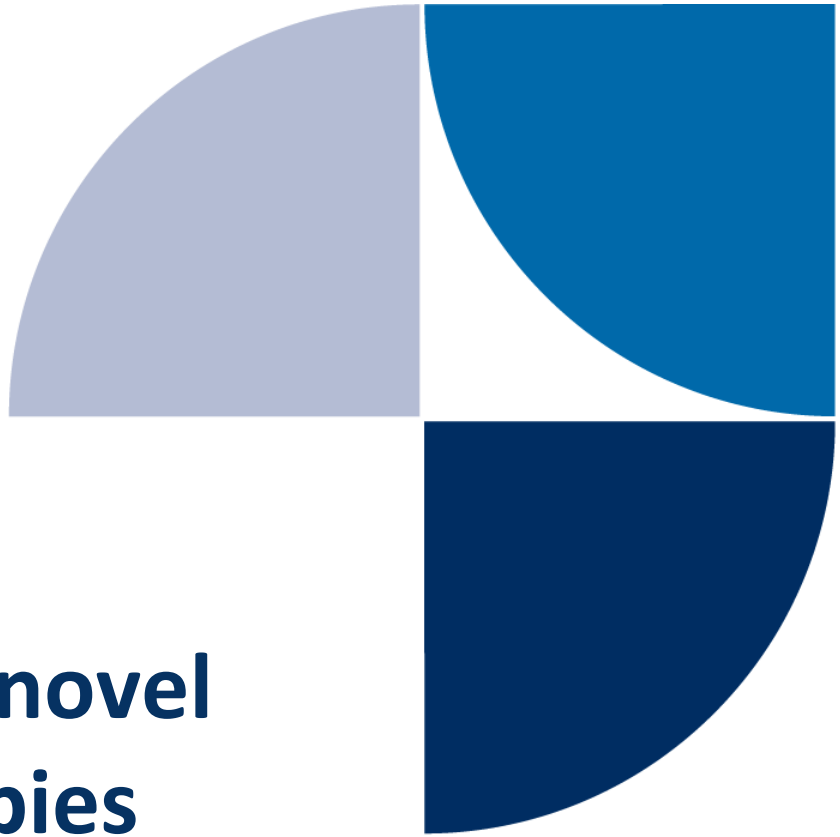

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