mesoblast

the regenerative medicine company

Operational Highlights and Financial Results for the Half Year Ended December 31, 2017

February 2018

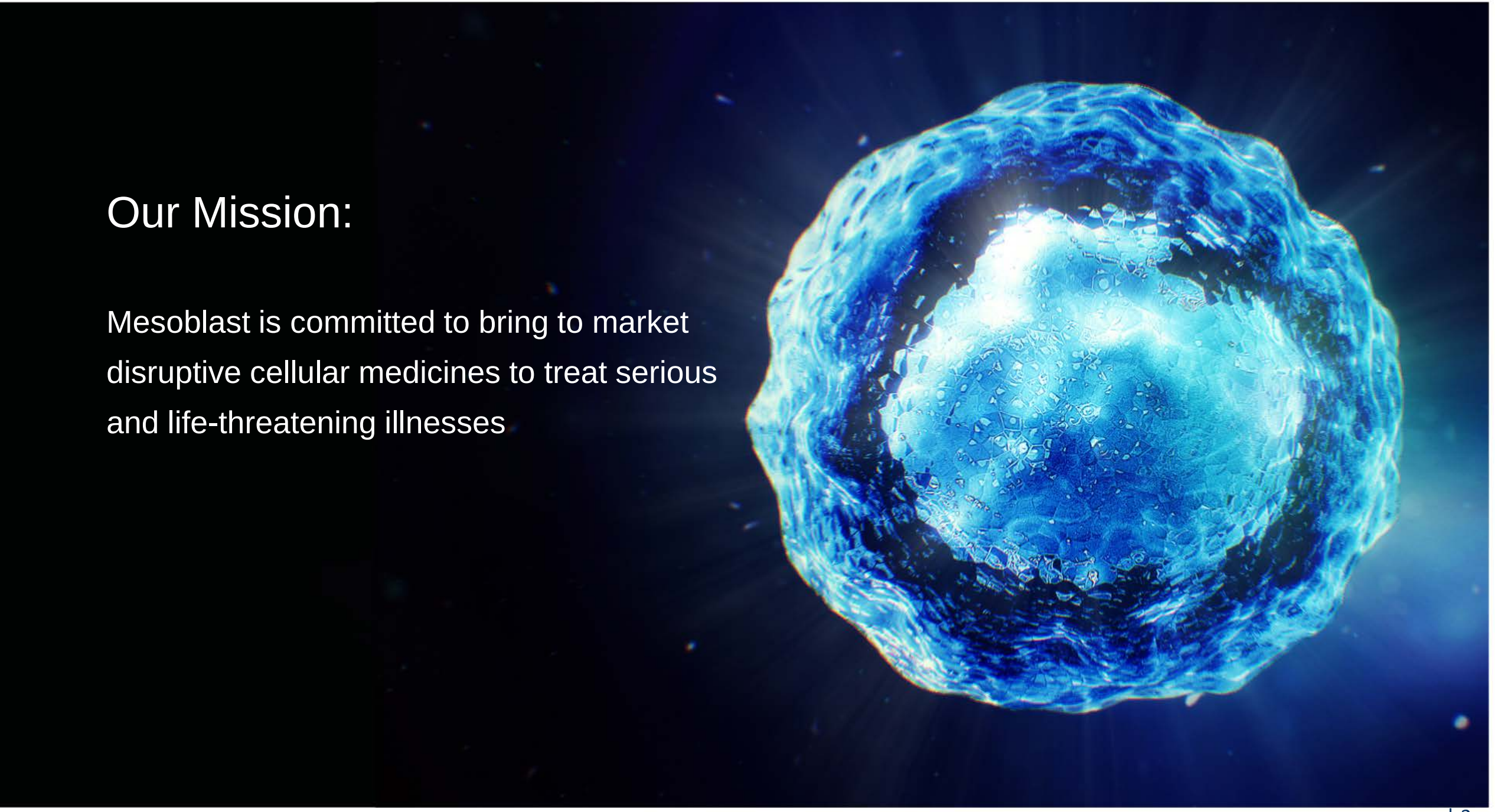
Nasdaq: MESO ASX: MSB

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This presentation includes forward-looking statements that relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements other than statements of historical facts contained in this presentation are forward-looking statements. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "plan," "targets," "likely," "will," "would," "could," and similar expressions or phrases identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and future events , recent changes in regulatory laws, and financial trends that we believe may affect our financial condition, results of operation, business strategy and financial needs. 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 relationships with current and potential future business partners and future benefits of those relationships; 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. Forward-looking statements should not be read as a guarantee of future performance or results, and actual results may differ from the results anticipated in these forward-looking statements, and the differences may be material and adverse. You should read this presentation together with our financial statements and the notes related thereto, as well as the risk factors, in our most recently filed reports with the SEC or on our website. Uncertainties 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. We do not undertake any obligations to publicly update or revise any forward-looking statements, whether as a result of new information, future developments or otherwise.

Our Mission:

Mesoblast is committed to bring to market disruptive cellular medicines to treat serious and life-threatening illnesses



Investment Proposition:
Building a Leading Franchise of Cellular Medicines

- Disruptive Cellular Technology Platform
- Commercial Translation Capabilities
- Advanced Pipeline of Cellular Medicines
- Targeting Serious or Life-Threatening Conditions with Unmet Needs

Disruptive Cellular Medicine Platform[1-4]

- Mesenchymal Lineage Cells (MLCs) have unique receptors that respond to activating inflammatory and damaged-tissue signals
- In response to these signals, MLCs secrete a diverse variety of biomolecules responsible for immunomodulation and tissue repair
- The multi-modal mechanisms of action target multiple pathways
- STRO-1$^+$ Mesenchymal Precursor Cells (MPCs) are at the apex of the MLC hierarchy and their immuno-selection provides a homogeneous population of potent cells

1. Simmons PJ and Torok-Storb, B. Identification of stromal cell precursors in bone marrow by a novel monocloncal antibody, STRO-1. Blood. 1991;78:55-62.
2. Gronthos S, Zannettino AC, Hay SJ, et al. Molecular and cellular characterisation of highly purified stromal stem cells derived from human bone marrow. J Cell Sci. 2003;116(Pt 9):1827-35.
3. See F, Seki T, Psaltis PJ, et al.Therapeutic effects of human STRO-3-selected mesenchymal precursor cells and their soluble factors in experimental myocardial ischemia. J Cell Mol Med. 2011;15:2117-29.
4. Psaltis PJ, Paton S, See F, et al. Enrichment for STRO-1 expression enhances the cardiovascular paracrine activity of human bone marrow-derived mesenchymal cell populations. J Cell Physiol. 2010;223(2):530-40.

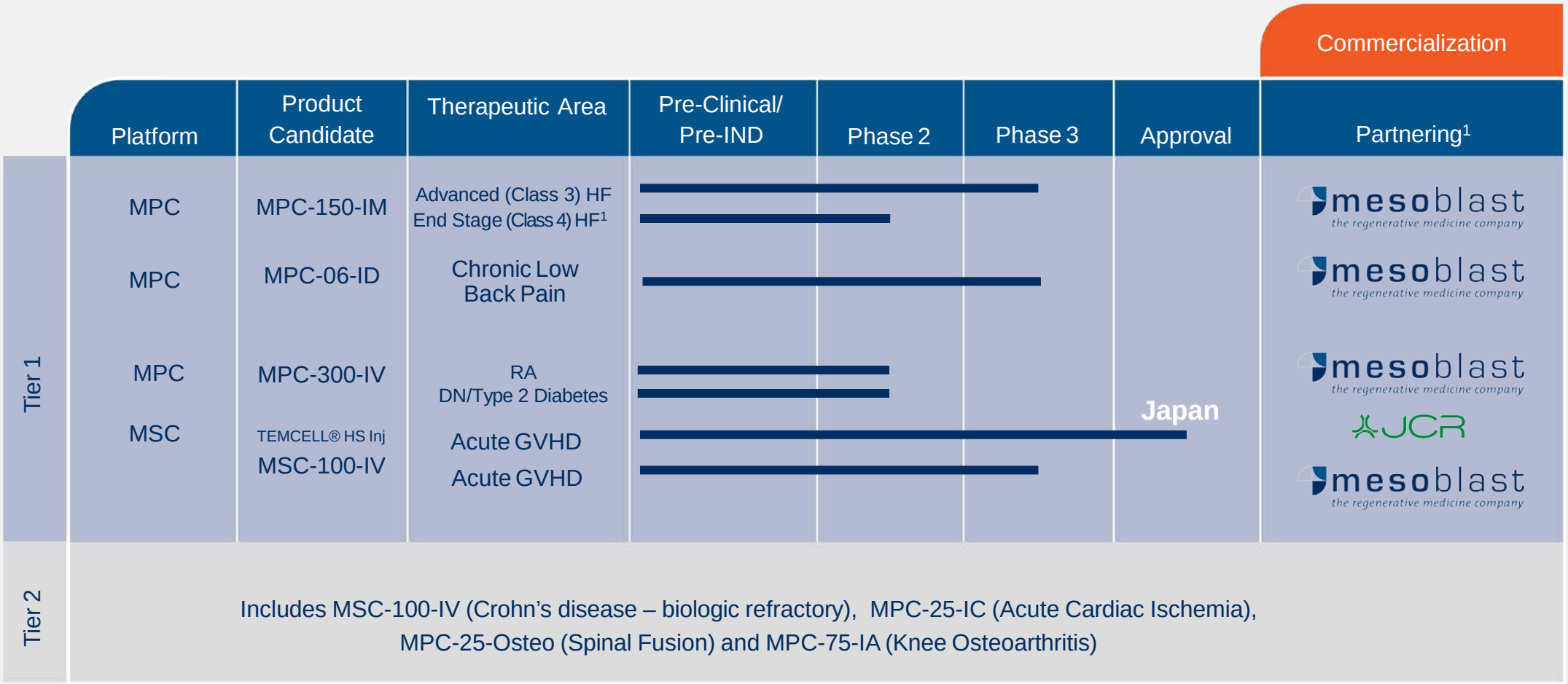
Commercial Translation Capabilities:

Technology Positioned for Scalable, Industrialized Manufacturing

- Immune privileged nature of MLCs enables allogeneic “off the shelf” product candidates
- Culture expansion scalable to produce commercial quantities of potent and reproducible therapeutic doses
- Specific formulations defined for product delineation
- Management know how in regulatory activities necessary for product approval and commercial launch
- MSC-100-IV (remestemcel-L) positioned to be first allogeneic MLC product launched in the USA

Lonza contract manufacturing facility in Singapore

Portfolio of Advanced Product Candidates:
Three Tier 1 Product Candidates in Phase 3



This chart is figurative and does not purport to show individual trial progress within a clinical program. For product registration purposes, Phase 3 programs may require more than one trial.
Tier 1 programs represent our lead programs where we focus the majority of our time and resources. Tier 2 programs are also in development and may advance to Tier 1 depending on the merit of newly generated data, market opportunity or partnering options.

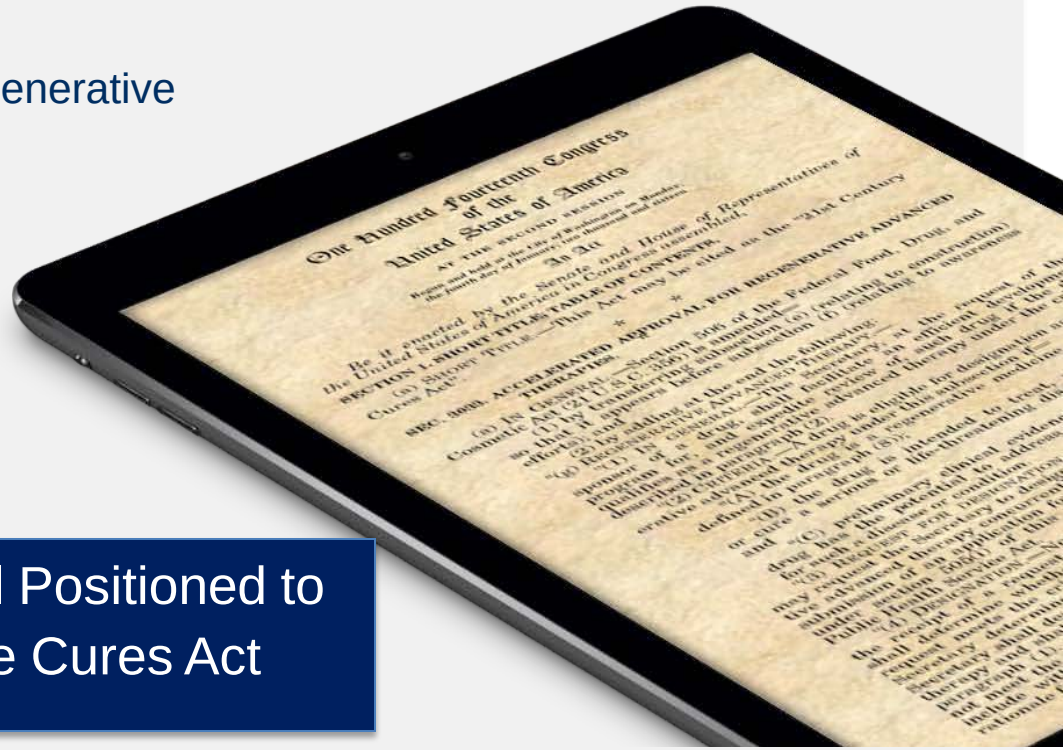
1. Clinical trial is funded by the U.S. National Institutes of Health and the Canadian Health Research Institute.

The 21st Century Cures Act ("Cures Act"):

Legislation for An Expedited Approval Path for Cellular Medicines Designated as Regenerative Medicine Advanced Therapies (RMAT)

- Cellular medicines may be designated as regenerative advanced therapies, if they are intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition, and there is preliminary clinical evidence indicating the potential to address the unmet medical need

- Key benefits of the legislation for cell-based medicines, designated as regenerative advanced therapies, include:
  - Potential eligibility for priority review and accelerated approval
  - Potential to utilize surrogate endpoints for accelerated approval
  - Potential to utilize a patient registry data and other sources of "real world evidence" for post approval studies, subject to approval by the FDA



Our Portfolio of Advanced Product Candidates is Well Positioned to Access Accelerated Approvals Pathways Under the Cures Act

Mesoblast Received FDA RMAT Designation For MPC-150-IM for Heart Failure Patients With Left Ventricular Assist Devices (LVADs)

- RMAT designation grant was based on the completed study data set and related analyses of a 30-patient randomized, blinded, placebo controlled trial in end-stage heart failure patients with LVADs which suggested:
  - Improved native heart function
  - Prolonged the time post LVAD implantation of a first hospitalization for a non-surgical GI bleeding event
  - Improved early survival rates

- 159 patient trial in end-stage heart failure with LVADs has completed enrollment with 12 month data readout Q3 CY 2018

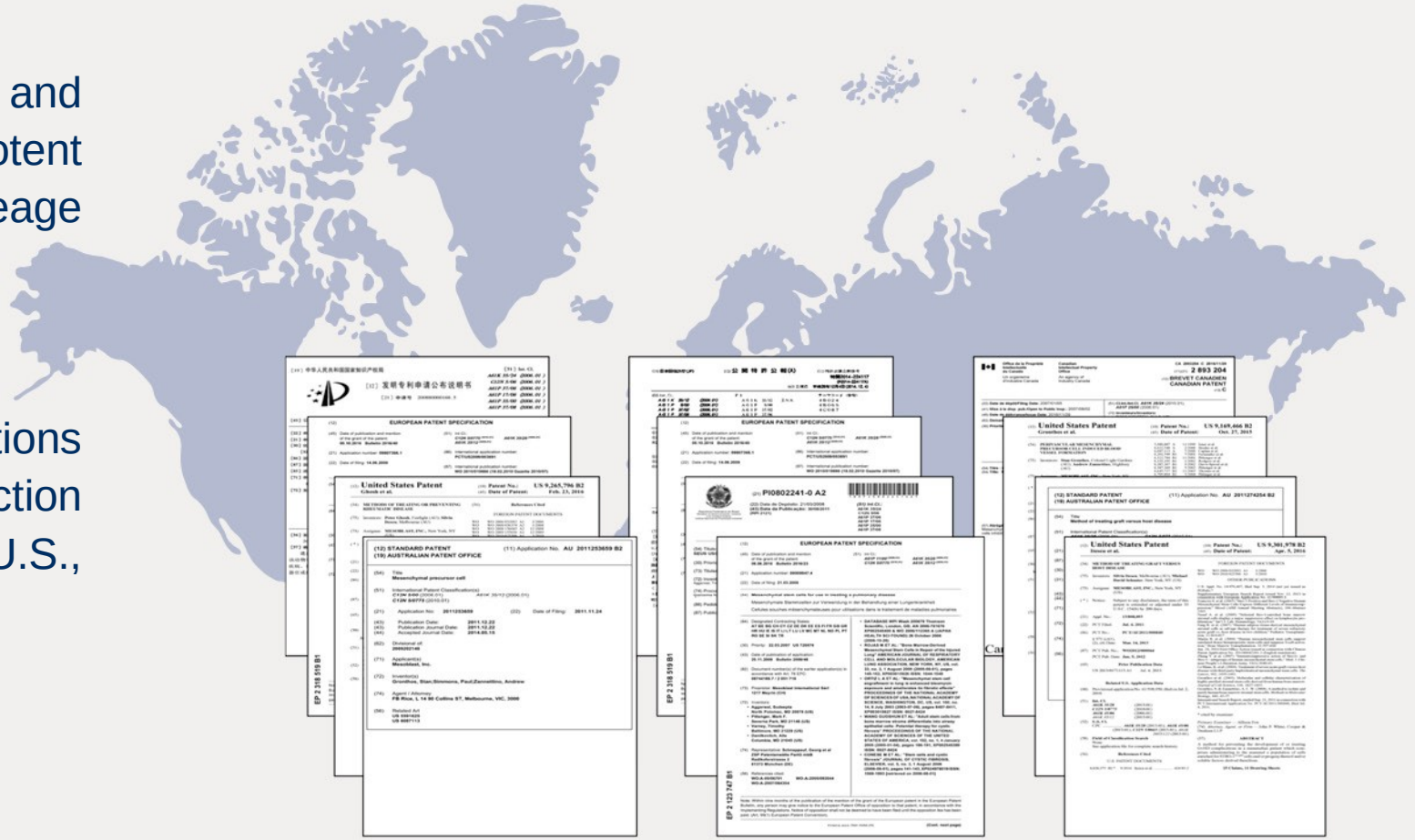
- Mesoblast intends to meet as soon as possible with the FDA regarding the company's development strategy. Key benefits of the designation as regenerative advanced therapies, could include:
  - Potential eligibility for priority review and accelerated approval
  - Potential to utilize surrogate endpoints for accelerated approval
  - Potential to utilize a patient registry data and other sources of "real world evidence" for post approval studies, subject to approval by the FDA

Intellectual Property:

An Extensive Portfolio Covering Mesenchymal Lineage Precursors and Progeny

- Composition of Matter, Manufacturing, and Therapeutic Applications of Potent Immuno-selected mesenchymal lineage precursor and stem cells

- 800 Patents and patent applications across 69 Patent Families. Protection across major markets including the U.S., Europe, Japan and China



Mesoblast Concluded Patent Settlement and License Agreement With TiGenix

- Mesoblast granted TiGenix exclusive access to certain of its patents to support global commercialization of the adipose-derived mesenchymal stem cell (MSC) product Cx601 limited to the local treatment of fistulae, including in Crohn's disease
- Mesoblast continues to develop its proprietary bone marrow-derived allogeneic expanded MSC product candidate for intravenous delivery to induce remission in patients with biologic-refractory Crohn's disease
- Mesoblast will receive up to €20 million in payments (approx. US$24 million), with €5 million upfront, €5 million within 12 months and up to €10 million in product regulatory milestones
- Mesoblast will additionally receive single digit royalties on global net sales of Cx601 for fistulae
- Subsequent to the patent settlement and license agreement, Takeda Pharmaceutical Co Ltd announced its intention to build upon its prior exclusive ex-USA license for Cx601 from TiGenix by acquiring TiGenix for approximately €520 million

Diverse Pipeline of Cellular Medicines

Acute Graft vs Host Disease

Remestemcel-L (MSC-100-IV) for Steroid-Refractory aGVHD

Remestemcel-L (MSC-100-IV): Market Opportunity for aGVHD

Burden of Illness

- Steroid-refractory aGVHD patients have mortality rates as high as 95%[1]
- Refractory aGVHD is associated with significant extended hospital stay costs[2]
- aGVHD - a severe immunological reaction occurring in BMT patients
- Is a major limitation in successful allogeneic hematopoietic stem cell transplants[1]

Minimal Treatment Options

- No regulatory approved treatment for SR-aGVHD outside of Japan
- No broad consensus on off-label second-line agents

Targeting Unmet Need

- Pediatrics: first-line steroid refractory
- Adults: first-line steroid refractory in high-risk (liver/gut disease) patients

Market Opportunity

- ~30,000 allogeneic BMTs performed globally (~20K US/EU5) annually, ~20% pediatric[4,5]
- Our licensee JCR Pharmaceuticals Co., Ltd received full approval in Japan (TEMCELL® HS Inj.) for aGVHD in 2015; reimbursed up to ~$USD195k[3]

1. Westin, J., Saliba, RM., Lima, M. (2011) Steroid-refractory acute GVHD: predictors and outcomes. Advances in Hematology.
2. Anthem-HealthCore/Mesoblast claims analysis (2016).
3. Based on a ¥JPY = $USD 0.009375 spot exchange rate on as of the market close on November 11, 2016. Amounts are rounded. Source: Bloomberg.
4. Gratwohl A et al Quantitative and qualitative differences in use and trends of hematopoietic stem cell transplantation: a Global Observational Study. Haematologica. 2013 Aug;98(8):1282-90.
5. CIBMTR, Decision resources GVHD Epi Nov 2012.

Remestemcel-L for aGVHD: Product Development Strategy

1. Target ***pediatric*** patients with SR-aGVHD first

- Extensive safety and efficacy data generated and published in children with SR-aGVHD[1]
- High economic burden in treatment of children with SR-aGVHD
- Fast-track designation provides pathway for priority review and rolling review process
- Submit single, open-label Phase 3 trial seeking accelerated approval

2. Seek label extension for high-risk ***adult*** patients with SR-aGVHD

- This adult subset has the highest mortality and greatest resistance to other treatment agents
- High economic burden in treating this population subset
- Remestemcel-L has shown efficacy signals in subgroup analyses of this population

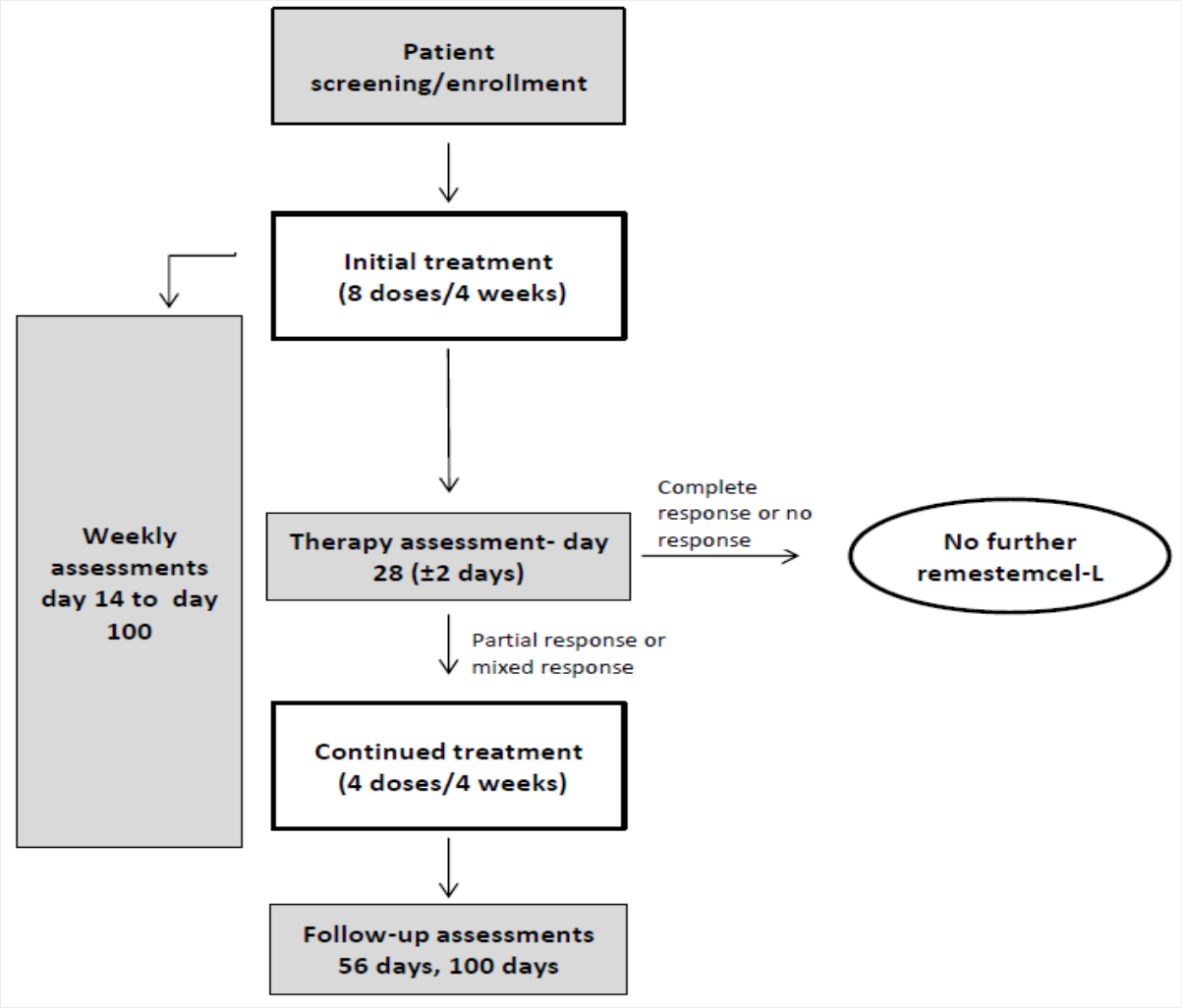
3. Lifecycle potential in ***chronic*** GVHD (cGVHD)

- Chronic GVHD represents a distinct GVHD patient population
- Proof of concept data already published for MSC in cGVHD[2]

1. Allogeneic Human Mesenchymal Stem Cell Therapy (Remestemcel-L) as a Rescue Agent for Severe Refractory Acute Graft-versus-Host Disease in Pediatric Patients - Biology of Blood and Marrow Transplantation Journal, August 2013. 2. Khandelwal P, Teusink-Cross A, Davies S (2017) Ruxolitinib as Salvage Therapy in Steroid-Refractory Acute Graft-versus-Host Disease in Pediatric Hematopoietic Stem Cell Transplant Patients. Biol Blood Marrow Transplant 23; 1122-1127
2. Weng JY, Du X, Geng SX, Peng YW, Wang Z, Lu ZS et al. Mesenchymal stem cell as salvage treatment for refractory chronic GVHD. Bone Marrow Transplant 45: 1732-1740 (2010)

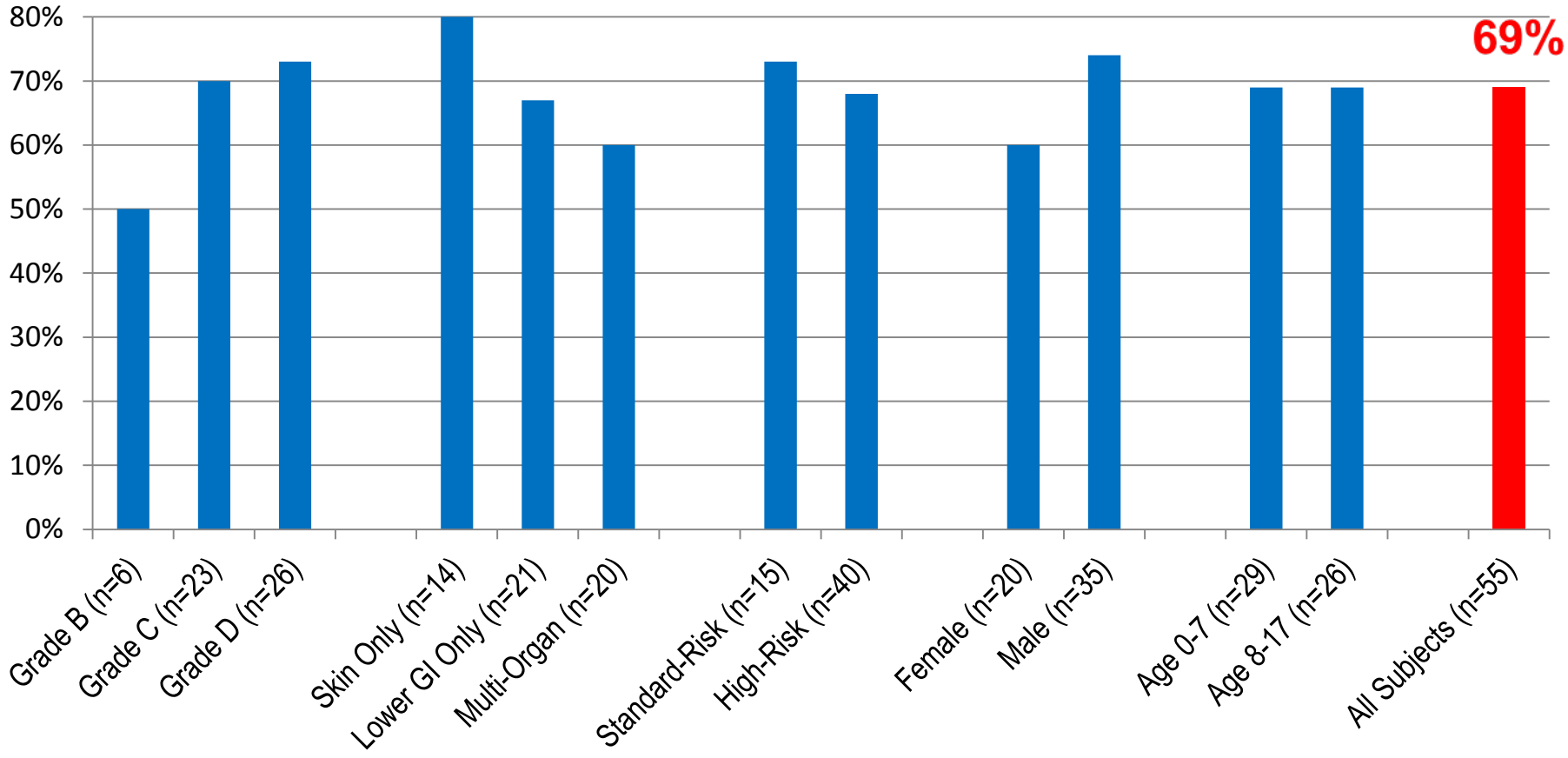
Remestemcel-L (MSC-100-IV): Phase 3 Pediatric Trial GVHD001 Completed Enrollment as First-line Therapy in aGVHD After Failing Steroids

- Multi-center, Single-Arm, Open-Label to evaluate efficacy and safety to day 100 (GVHD001) and from day 100 to day 180 (GVHD002)
- 55 pediatric patients (2 months to 17 years)
- aGVHD following allogeneic HSCT failing systemic corticosteroid therapy
- Grade B aGVHD involving liver and/or GI tract with or without concomitant skin disease
- Grades C and D aGVHD involving skin, liver and/or GI tract
- Primary endpoint: **Overall response at Day 28**
- Key secondary endpoint: Survival at Day 100
- Interim futility analysis of primary endpoint successful November 2016



Protocol GVHD001: Primary Efficacy Outcome

Overall Response at Day 28 was 69%, p=0.0003



- 69% Overall Response rate at Day 28 (29% CR + 40% PR)
- p-value calculated from the binomial distribution, under the assumption of a 0.45 success rate under the null hypothesis

Protocol GVHD001: Results of Safety and Mortality

- Remestemcel-L (MSC-100-IV) infusions were well tolerated
- The incidence of adverse events in the trial was consistent with that expected from the underlying disease state and in line with previous use of remestemcel-L (MSC-100-IV)
- Eleven subjects have died during the study (22% mortality through Day 100)
  - None of the deaths was reported to be related to remestemcel-L (MSC-100-IV) by the investigators
  - The underlying causes of death included HSCT-related causes in 9 subjects (8 due to infections and 1 due to GHVD progression), and primary cancer relapse in 2 subjects
- Four subjects have terminated participation in the study early (prior to Day 100)
  - 1 subject was not able to be dosed; 1 subject had a non-fatal AE (somnolence); 1 subject had parental consent withdrawn; and 1 subject was withdrawn by PI

Protocol GVHD001: Summary and Conclusions

- This Phase 3 study evaluated allogeneic mesenchymal stem cells (MSCs), remestemcel-L (MSC-100-IV), for the treatment of steroid-refractory acute graft-versus-host disease intended to improve overall response rate in pediatric subjects

- Study successfully met the primary endpoint of improved Day 28 Overall Response in steroid-refractory pediatric subjects with severe disease
  - Day 28 OR was 69%
  - Day 28 OR was significantly improved (p=0.0003) compared to protocol-defined historical control rate of 45%

- Remestemcel-L (MSC-100-IV) was safe and the infusions were well tolerated. The incidence of adverse events in the trial was consistent with that expected from the underlying disease state and in line with previous use of remestemcel-L (MSC-100-IV)[1]

- Among patients who received at least one treatment infusion and were followed up for 100 days (n=50), the mortality rate was 22%, an encouraging indicator of potential longer term benefit

- These findings are consistent with the overall response, safety, and survival in the previous report of remestemcel-L (MSC-100-IV) in a 241 subject expanded access protocol of pediatric subjects with SR-aGVHD who failed to respond to steroids as well as to multiple additional treatments[2]

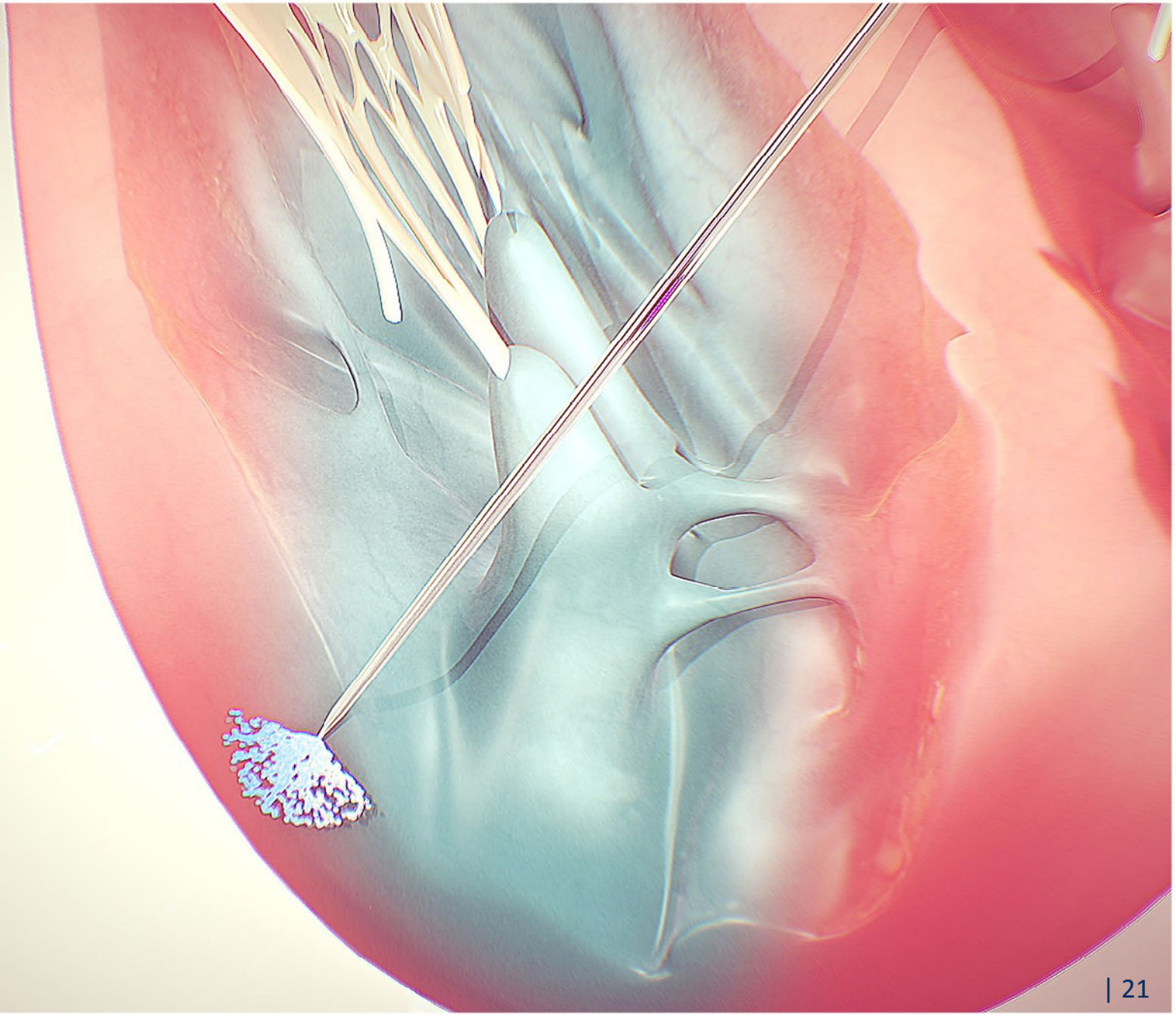
1. Data on file from Protocol 280 Clinical Study Reports.
2. Kurtzberg J. et al. Effect of Human Mesenchymal Stem Cells (Remestemcel-L) on Clinical Response and Survival Confirmed in a Large Cohort of Pediatric Patients with Severe High-Risk Steroid-Refractory Acute Graft Versus Host Disease. BBMT. 2016; 22.

Remestemcel-L (MSC-100-IV): Commercialization Plans

- Clinical
  - Successful primary endpoint at Day 28 - Completed
  - Day 100 survival (Q2 CY2018)
  - Day 180 safety and survival (Q3 CY2018)
- Manufacturing
  - Commercial Readiness
- Market preparation
  - Pricing and reimbursement
  - Medical Education plan
- Regulatory
  - North America
    - USA: Pre-BLA meeting - request for rolling submission under approved Fast Track designation
    - FDA submission
    - Canada : registration of Singapore manufacturing facility for product launch
  - EU: Orphan designation; potential for conditional approval based on current clinical evidence

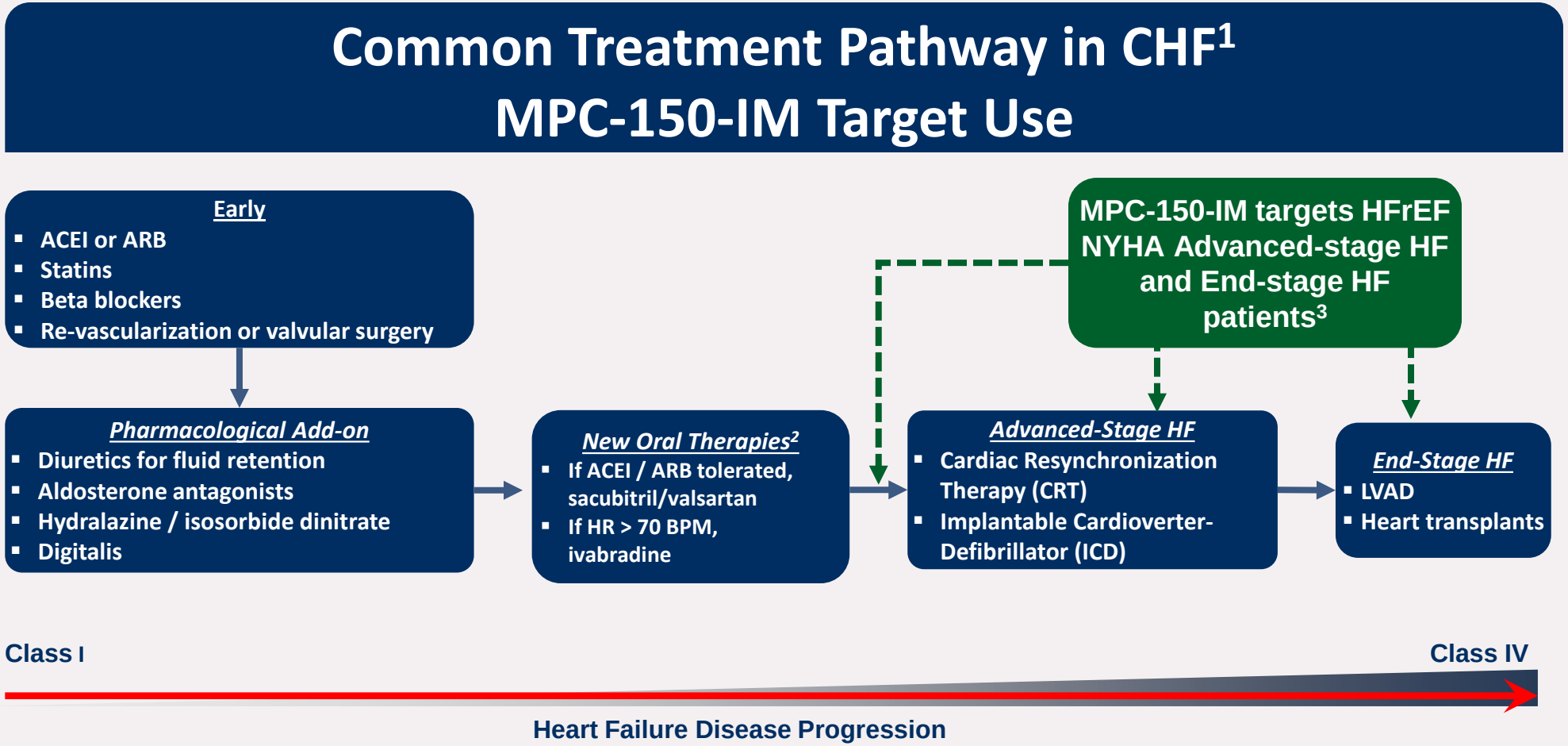
Potential for Commercial Partners to Accelerate Regulatory Efforts, Market Preparation and Life Cycle Management

MPC-150-IM
Chronic Heart Failure (CHF) Program



MPC-150-IM:

Targeting Patients with Worsening HF Despite Optimal Standard of Care



1. Source: Simon-Kucher & Partners 2017. Primary research 2017; Payers n=35, KOLs n=15, Cath lab managers n=4.
2. Corlanor® (ivabradine) approved by FDA (April 2015). ENTRESTO® (sacubitril/valsartan) approved by FDA (July 2015).
3. GlobalData-PharmaPoint Heart Failure (2016); McMurray et al., 2012;Yancy et al., 2013, 2016 ACC/AHAHFSA Focused Update on New Pharmacological Therapy for Heart Failure: An Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure.

MPC-150-IM: Product Development Strategy Following RMAT Designation for Heart Failure Patients With Left Ventricular Assist Devices (LVADs)

- Leverage data for potential near term market entry opportunity for MPC-150-IM in end-stage heart failure patients with LVADs
- Broaden market potential to Bridge to Recovery (BTR) market, representing a high-growth market opportunity for temporary LVAD use and possible explantation in end-stage, Class-IV heart failure patients
- Label extension through completion of phase 3 program (DREAM-HF) in NYHA class IIb/III heart failure patients

MPC-150-IM: Class IV Market Opportunity

Burden of Illness

- 250K – 300K patients/yr suffer from advanced systolic HF (NYHA Class IV)[1]
- 50k patients/yr have end-stage heart failure
- Despite optimal medical therapy, 1-year mortality exceeds 50% in end-stage heart failure patients[1]

Minimal Treatment Options

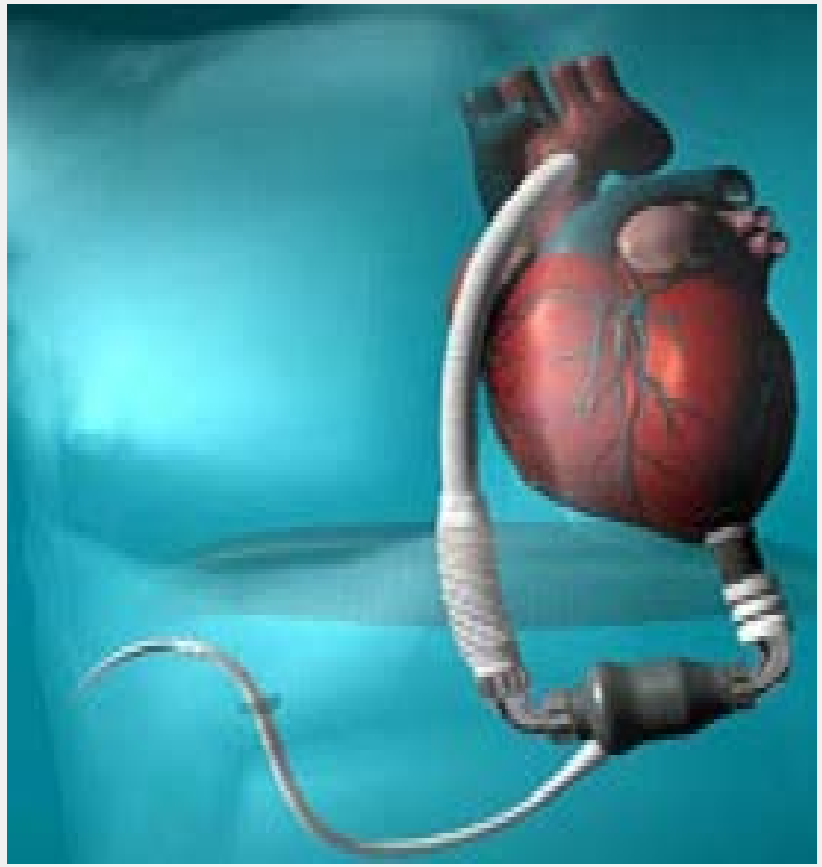
- Only ~2K heart transplants are performed in U.S. annually due to limited donors[2]
- LVADs have improved survival, but 1-year mortality remains at 20-30%[1]
- Number of destination (permanent) LVADs implanted/yr are <5K due to associated high morbidity (e.g. GI bleeding and infection)

Unmet Need

- Strengthen native heart muscle
- Reduce re-hospitalizations
- Increase survival

Market Opportunity

- US LVAD market growing double-digit CAGR[4]
- US targeted commercial footprint (top 40 centers represent 75% of volume) provides low cost market entry[3]



1. Gustafsson G, Rogers J. (2017) Left ventricular assist device therapy in advanced heart failure: patient selection and outcomes. European Journal of Heart Failure 19, 595-602., 2. Agency for Healthcare Research and Quality: HCUPnet: ICD-9 principal procedure code 27.51 2014., 3. Medicare provider charge inpatient-DRGALL-FY2014., St. Jude Medical-2016-analyst and investor day

MPC-150-IM:

Phase 2b Trial Evaluating 150M MPCs in End-Stage Heart Failure Patients with LVADs

- The 159-patient, double-blind, placebo-controlled 2:1 randomized trial, is evaluating the safety and efficacy of injecting MPC-150-IM into the native myocardium of LVAD recipients

- Enrollment completed in Q3, CY2017

- Key safety and efficacy endpoints of the study:
  - Number of temporary weans from LVAD tolerated (through 6 months)
  - Time to re-hospitalization (through 12 months)
  - Patient survival (through 12 months)
  - Various quality of life measurements (through 12 months)

- Study is sponsored by Icahn School of Medicine, funded by the United States National Institutes of Health (NIH) and Canadian Health of Research Institute, and conducted by the NIH-funded Cardiothoracic Surgical Trials Network (CTSN)

- **RMAT designation for end stage heart failure with LVADs granted December 2017**
- **Phase 2B trial for Class IV; 12 month data read-out (Q3 CY18)**

MPC-150-IM: Class III Heart Failure Market Opportunity

Burden of Illness

- Globally, 17-45% of heart failure patients die within 1 year of hospital admission
- Majority die within 5 years of admission[1]
- MPC-150-IM to target advanced HFrEF NYHA Class II-III with the objective of reducing major cardiovascular events (e.g. mortality and hospitalizations)

Minimal Treatment Options

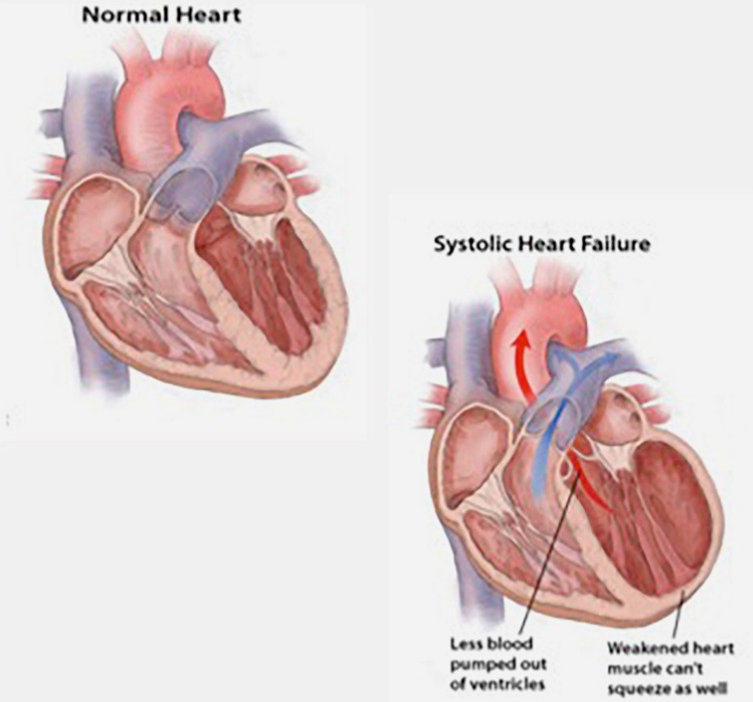
- Despite recent advancements in pharmacotherapy, limited treatment options are available for patients with advanced NYHA Class II-IV Heart Failure with Reduced Ejection Fraction (HFrEF)[2]

Unmet Need

- Therapy that reduces major cardiovascular events (e.g. mortality and hospitalizations) in patients with advanced HFrEF NYHA Class II – III

Market Opportunity

- NYHA Class II-IV patients with LVEF<40% in the US alone3
- Over $60.2bn/yr in U.S. direct costs when this illness is identified as a primary diagnosis[4]
  - $115bn as part of a disease milieu[4]; hospitalizations result in ~69% of expenditures[5]



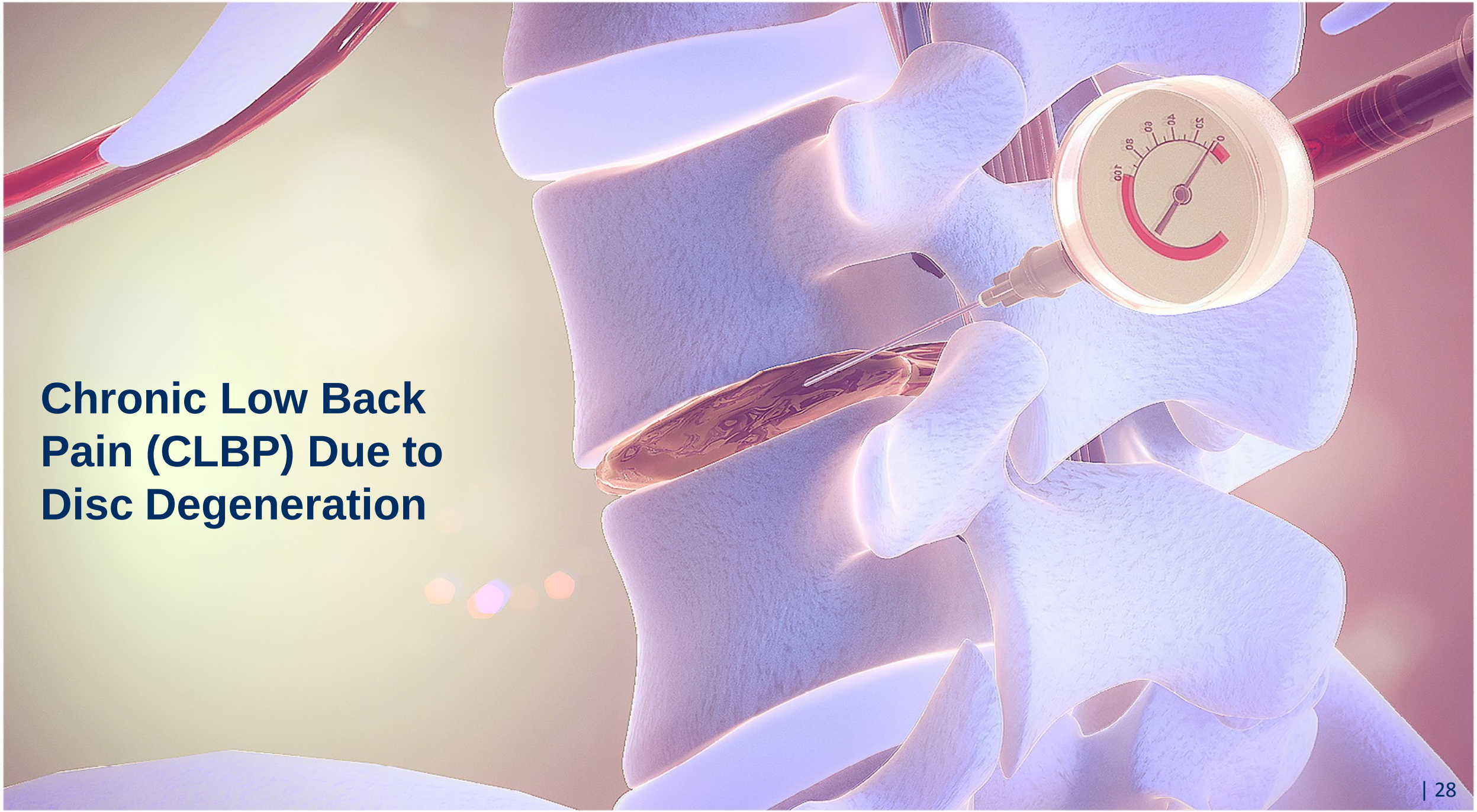
1. Heart Failure: Preventing disease and death worldwide – European Society of Cardiology 2014., 2. ACC/AHAHFSA Focused Update on New Pharmacological Therapy for Heart Failure: An Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure., 3. Gurwitz JH, Magid DJ, Smith DH, et al. Contemporary Prevalence and Correlates of Incident Heart Failure with Preserved Ejection Fraction. The American Journal of Medicine. 2013;126(5):393-400. Derived by applying a HF-REF prevalence rate of 32.6% to the U.S. rate of 5.7m U.S. patients., 4.A Reevaluation of the Costs of Heart Failure and its Implications for Allocation of Health Resources in the United States. Voigt J. Clinl.Cardiol. 37, 5, 312-321 (2014)., 5.The Medical and Socioeconomic Burden of Heart Failure: A Comparative Delineation with Cancer. Dimitrios, F. International Journal of Cardiology (2015), doi: 10.1016/j.ijard.2015.10.172.,

MPC-150-IM:

Operational Update for Phase 3 Trial in NYHA Class II-III Advanced CHF Patients

- Trial has enrolled more than 400 of approximately 600 patients
- In April 2017, a pre-specified interim futility analysis of the efficacy endpoint in the Phase 3 trial's first 270 patients was successfully achieved
- After completing the interim analysis, the trial’s Independent Data Monitoring Committee (IDMC) formally recommended the trial be continued as planned
- Phase 3 trial targeted enrollment completion (2H CY18)

Chronic Low Back Pain (CLBP) Due to Disc Degeneration



MPC-06-ID: A Non-Opioid Alternative for Chronic Low Back Pain Due to Degenerative Disc Disease

Burden of Illness

- Back pain causes more disability than any other condition[1]
- Inflicts substantial direct and indirect costs on the healthcare system[1], including excessive use of opioids in this patient population

Minimal Treatment Options

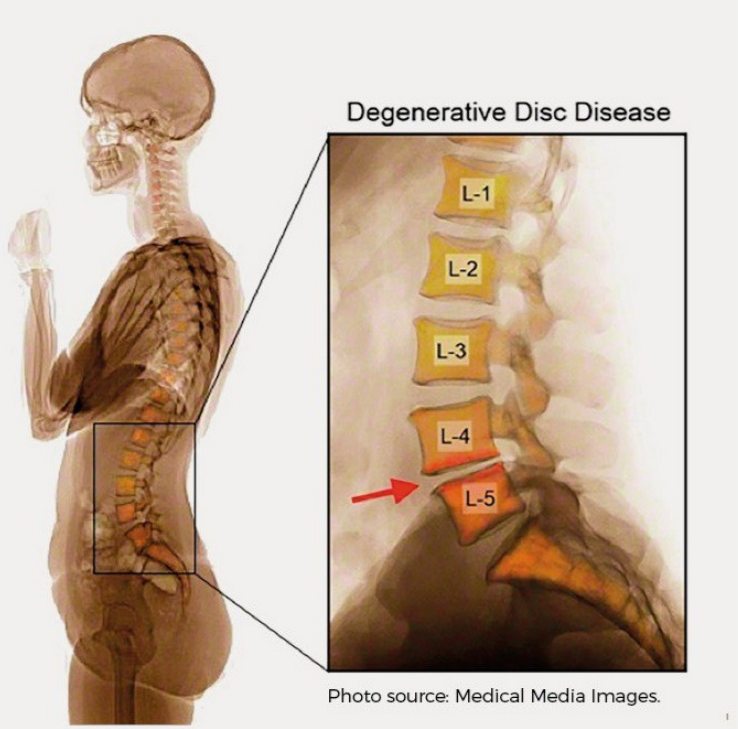
- Treatment options for patients with CLBP who fail conservative therapy include opioids and surgery
- 50% of opioid prescriptions are for chronic low back pain (CLBP)

Unmet Need

- Disease modifying therapy for durable improvement in pain and function
- Potential to prevent progression to opioid use or surgical intervention

Market Opportunity

- In 2016, over ~7m U.S. patients are estimated to suffer from CLBP due to degenerative disc disease (DDD)[3,4,5]
- MPC-06-ID development program targets over ~3.2m patients



1. Williams, J., NG, Nawi, Pelzter, K. (2015) Risk factors and disability associated with low back pain in older adults in low-and middle-income countries. Results from the WHO Study on global ageing and adult health (SAGE). PloS One. 2015; 10(6): e0127880., 2. Simon, J., McAuliffe, M., Shamim, F. (2015) Discogenic Low Back Pain. Phys Med Rehabil Clin N Am 25 (2014)305–317., 3.Decision Resources: Chronic Pain December 2015., 4. LEK & NCI opinion leader interviews, and secondary analysis., 5. Navigant: Commercial Assessment for a Proprietary Cell-Based Therapy for DDD in the U.S. and the EU3 – August 2014.

The Opioid Epidemic

- 50% of opioid prescriptions are for chronic low back pain (CLBP)
- Over 1,000 people are treated in U.S. emergency departments everyday for misusing prescription opioids
- Over 33,000 people in the U.S. died of prescription opioid related overdoses in 2016
- Opioid epidemic declared a public health emergency by U.S. President Trump in October, 2017
- A non-opioid solution for CLBP is imperative

The 21st Century Cures Act includes specific measures to combat opioid dependence

Information derived from Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2015 on CDC WONDER Online Database, released December, 2016. Available at: http://wonder.cdc.gov/ucdicd10.html. Substance Abuse and Mental Health Services Administration. Key Substance Use and Mental Health Indicators in the United States: Results from the 2015 National Survey on Drug Use and Health. Online Database, released September, 2016. Available at: https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.htm
Jones CM. Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers - United States, 2002-2004 and 2008-2010. Drug Alcohol Depend. 2013 Sep 1;132(1-2):95-100. doi: 10.1016/j.drugalcdep.2013.01.007.Epub 2013 Feb 12.

MPC-06-ID: Phase 3 Trial Update

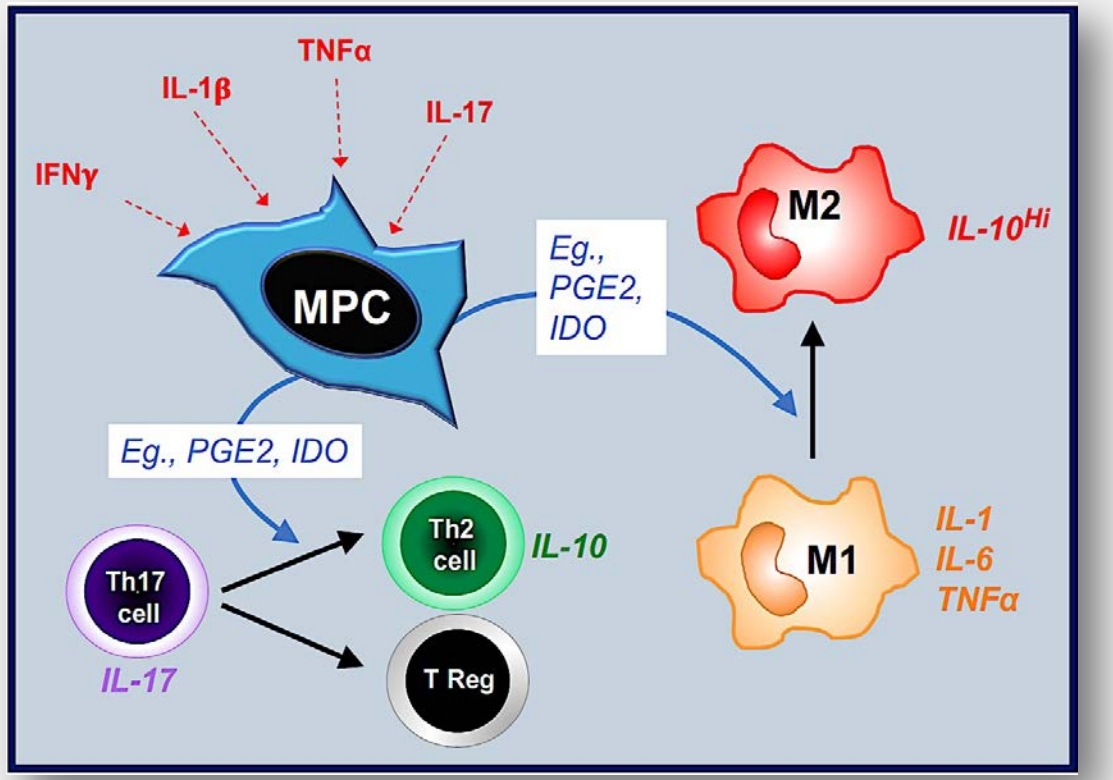
- A 360-patient Phase 3 trial across U.S. and Australian sites
- Targeted to complete recruitment Q1 CY18
- FDA has provided written guidance:
  - Use of a composite primary endpoint at 12 and 24 months is acceptable
  - Agreed thresholds for pain (50% decrease in VAS) and function (15 point improvement in ODI)
  - No additional intervention at the treated level through 24 months

If the P3 results replicate P2 results in pain and function, leverage this product candidate as a potential non-opioid treatment option for chronic low back pain

Our inflammatory diseases portfolio (MPC-300-IV)

MPC-300-IV:

Being evaluated in immune mediated diseases where the cellular product candidate responds to multiple inflammatory signals by releasing factors that modulate the immune response



Phase 2 Clinical Data in Immune Mediated Diseases

- **60 patients, type 2 diabetes with inadequately controlled glucose:**
  - Randomized, placebo controlled dose-ranging study completed
  - Positive dose-dependent effects seen on reduction in HbA1c at 3 months[1]
- **30 patients, diabetic kidney disease:**
  - Randomized, placebo controlled dose-ranging study completed
  - Positive effects seen on glomerular filtration rate and on inflammatory biomarkers over 6 months[2]
- **48 patients, biologic-refractory rheumatoid arthritis**:
  - Randomized, placebo controlled, dose-ranging study over 52 weeks
- **MPC-300-IV was well tolerated in all 3 Phase 2 studies**

1. Allogeneic Mesenchymal Precursor Cells in Type 2 Diabetes: A Randomized, Placebo-Controlled, Dose-Escalation Safety and Tolerability Pilot Study - Diabetes Care, July 2015
2. Allogeneic Mesenchymal Precursor Cells (MPC) in Diabetic Nephropathy: A Randomized, Placebo-controlled, Dose Escalation Study - E BioMedicine, October 2016

MPC-300-IV:

Phase 2 trial in biologic refractory Rheumatoid Arthritis shows early and durable effects after single dose

- Infusions were well-tolerated and there were no treatment-related serious adverse events reported, with the safety profile comparable among the placebo and two MPC treatment groups.
- A single intravenous MPC infusion in biologic refractory RA patients resulted in dose-related improvements in clinical symptoms, function, disease activity and patient-reported outcomes. Efficacy signals were observed for each of ACR 20/50/70, ACR-N, HAQ-DI, SF-36 and DAS-28 disease activity score.
- 2 million MPC/kg dose showed greatest overall treatment responses. Onset of treatment response occurred as early as 4 weeks, peaked at 12 weeks, was sustained through 39 weeks, and waned by 52 weeks.
- Greatest benefits over 52 weeks were seen in patients who had failed less than 3 biologics (1-2 biologic sub-group) prior to MPC treatment, identifying this as a potentially optimal target population

- **Phase 2 trial clinical responses along with the safety profile position MPC-300-IV as an early treatment option in RA patients who are resistant or intolerant to anti-TNF or other biologics**
- **Future studies will evaluate potential benefits of higher doses**

Financials & Milestones

Q2 FY18:

Cash Position and Cash Flows for the Half Year Ending 31 December 2017 (US$m)

	31 Dec 2017	31 Dec 2016	$Change	%Change
Operating net cash outflows	(35.2)	(46.4)	11.2	24%
Investing cash outflows	(0.7)	(0.3)	(0.4)	(133%)
Financing cash inflows/(outflows)	37.9	(0.1)	38.0	NM
Forex	(0.4)	(0.3)	(0.1)	(33%)
Net increase (decrease) in cash	1.6	(47.1)	48.7	103%

- Net cash outflows from Operating activities have reduced 24% ($11.2 million) as a result of:
  - a reduction of $4.7 million in payments to suppliers and employees; and
  - increased inflows of $6.5 million relating to the upfront receipt of $5.6 million upon execution of our patent license agreement with TiGenix NV (TiGenix) and increased receipts on sales of TEMCELL® Hs. Inj. in Japan

	31 Dec 2017	30 Jun 2017	$Change
Cash on Hand	47.4	45.8	1.6

Q2 FY18:

Profit and Loss for the Half Year ending 31 Dec 2017 (US$m)

For the six months ending	31 Dec 2017	31 Dec 2016	$ Change	%
Revenue	14.6	0.9	13.7	NM
Research and Development	(31.6)	(29.0)	(2.6)	(9%)
Manufacturing Commercialization	(1.7)	(7.1)	5.4	76%
Management & Administration	(10.6)	(10.3)	(0.3)	(3%)
Contingent Consideration	8.7	(1.3)	10.0	NM
Other Operating Income & Expenses	1.1	0.8	0.3	39%
Loss Before Tax	(19.6)	(46.1)	26.5	58%
Taxation	26.2	6.2	20.0	NM
Profit / (Loss) After tax	6.7	(39.8)	46.5	117%

Revenue increased by $13.7 million vs the comparative period in FY17

- **Commercialization revenue increased by 139% ($0.9 million)** due to an increase in royalty income on sales of TEMCELL® Hs. Inj.
- **Milestone revenue increased by $12.8 million** due to:
  - An upfront milestone of $5.9 million (€5.0 million) was received upon execution of our patent license agreement with TiGenix in December 2017. In addition, a further milestone of $5.9 million (€5.0 million) was also recognized under the agreement
  - Sales milestones of $1.0 million were recognized on sales of TEMCELL® Hs. Inj.

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Overall management contained spend whilst increasing its R&D investment in Tier 1 clinical programs by deferring manufacturing production and constraining management and administration costs

- **R&D expenses increased by $2.6 million (9%)** as management invested in Tier 1 clinical programs
- **Manufacturing Commercialization decreased by $5.4 million (76%)** – sufficient clinical grade product on hand enabled the number of production runs to be reduced in the period vs the comparative half year period
- **Management & Admin costs increased by $0.3 million (3%)** due to increased labour costs for non-cash share based payments partially offset by a reduction in costs as management contained rent, IT costs and professional service fees

Q2 FY18:

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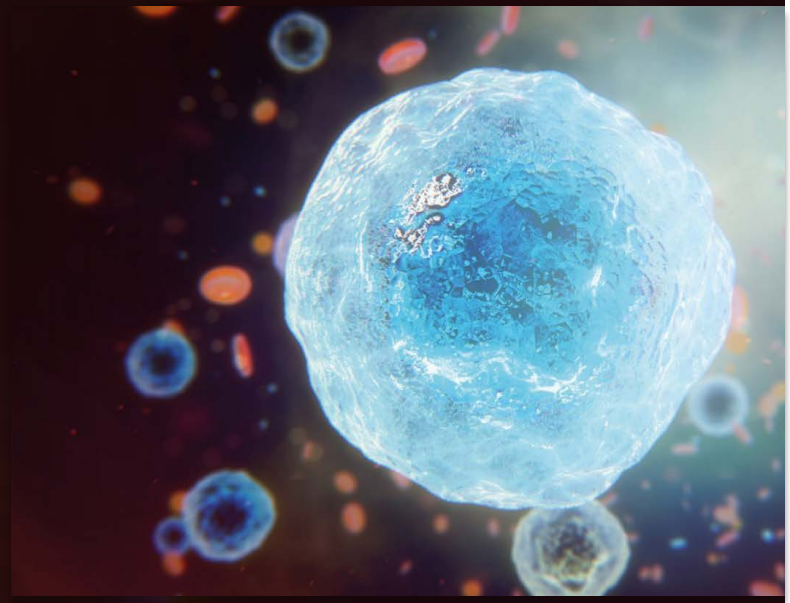
- A non-cash income tax benefit of $26.2 million was recognized in the half-year to 31 Dec 2017 primarily due to a revaluation of our deferred tax assets and liabilities recognized as a result of changes in US corporate income tax rates from 35% to 21% following the adoption of the Tax Cuts and Jobs Act

- The company recorded a profit after tax of $6.7 million in the half year to 31 Dec 2017 compared with a loss after tax of $39.8 million for the comparative period

Targeted Upcoming Milestones and Catalysts

- **MSC-100-IV for Pediatric Acute GVHD**
  - Day 28 primary endpoint data read-out (Q1 CY18) **COMPLETE**
  - Day 100 survival data (Q2 CY18)
  - Day 180 safety data (Q3 CY18)
- **MPC-06-ID for Chronic Low Back Pain**
  - Phase 3 trial expected to complete enrollment (Q1 CY18)
- **MPC-150-IM for Advanced and End-Stage Heart Failure**
  - Phase 2B trial for Class IV; 12 month data read-out (Q3 CY18)[1]
  - Phase 3 trial for Class II/III targeted enrollment completion (H2 CY18)
- **Potential Corporate Partnerships**



1. Study is funded by the United States National Institutes of Health (NIH) and the Canadian Health Research Institute (CHRI), and conducted by the NIH-funded Cardiothoracic Surgical Trials Network (CTSN).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Questions?