

CHAIRMAN'S ADDRESS TO SHAREHOLDERS

2023 ANNUAL GENERAL MEETING

Good afternoon shareholders. Welcome to the 2023 Mesoblast Annual General Meeting. It is a pleasure to get together with you once again.

A huge amount was accomplished during the year despite the disappointment of a further delay in gaining approval for our lead product candidate, Ryoncil® (remestemcel-L), in the treatment of children with steroid-refractory acute graft versus host disease (SR-aGVHD)- a devastating and life-threatening complication of a bone marrow transplant. The company continues to demonstrate the value of our technology and pipeline across the portfolio with the Board fully supportive of Mesoblast's corporate and commercial strategy led by our very capable Chief Executive, Dr Silviu Itescu.

The Mesoblast team continues to have very constructive interactions with United States Food and Drug Administration (FDA) in regard to RYONCIL for pediatric SR-aGVHD, including the recent Type A meeting, and understand the remaining issues that need to be addressed in order to gain FDA approval for RYONCIL as the first allogeneic mesenchymal stromal cell product in the United States. Additional potency assay work is being completed for presentation to the FDA, and last week we announced an agreement with the Blood and Marrow Transplant Clinical Trials Network to partner on a Phase 3 pivotal trial of RYONCIL in the treatment of adults with SR-aGVHD.

Indeed, as evidence for management's continued positive interactions with FDA, I am pleased to say that FDA granted Regenerative Medicine Advanced Therapy designation for our next generation potential blockbuster product rexlemestrocel-L for treatment of chronic low back pain associated with disc degeneration.

We also filed for orphan drug and rare pediatric disease designations with the FDA for Revascor® (rexlemestrocel-L) in the treatment of another devastating illness in children - severe congenital heart disease. The filings were based on results from a trial conducted at a single center in the United States in 19 children and accepted for publication in The Journal of Thoracic and Cardiovascular Surgery Open (JTCVS Open) which showed that a single administration of REVASCOR at the time of surgery resulted in a significant increase in the volume of the congenitally small left ventricular heart pumping chamber.

The Board is in alignment with the Chief Executive's outlined strategy for fiscal prudence and targeted reduction in payroll and quarterly spend. The management team has already successfully executed a substantial reduction in spend over the past two years, and the Board fully supports the new plan to preserve the Company's cash as well as strengthen the balance sheet through a number of planned initiatives.

In this regard, I would like to acknowledge the initiative taken by our Chief Executive and Chief Medical Officer to lead by example and defer the entire FY23 short-term incentives (STI), and voluntarily reduce their base cash payment by 30% in lieu of accepting equity-based incentives. I also thank my fellow directors for agreeing to voluntarily defer 50% cash payment of their director fees and to receive the remaining 50% of their fees in equity-based incentives.

In keeping with the Board's stated intention to maintain a program of renewal that generates regular rotation of Board membership, Ms Jane Bell joined the Board during the 2023 financial year. In September 2023, Ms Bell was appointed Chair of the Mesoblast Board Audit and Risk Committee, a role for which she is exceptionally well qualified to make a substantial contribution. I would like to thank our management team and all our employees who have put in a huge effort with respect to our FDA interactions and who continue to maintain their tremendous output toward the potential approval of our lead-product candidate.

Most importantly, I would like to thank our shareholders for their ongoing confidence in and support of Mesoblast as we continue our mission to obtain our first FDA product approval.

About Mesoblast

Mesoblast (the Company) is a world leader in developing allogeneic (off-the-shelf) cellular medicines for the treatment of severe and life-threatening inflammatory conditions. The Company has leveraged its proprietary mesenchymal lineage cell therapy technology platform to establish a broad portfolio of late-stage product candidates which respond to severe inflammation by releasing anti-inflammatory factors that counter and modulate multiple effector arms of the immune system, resulting in significant reduction of the damaging inflammatory process.

Mesoblast has a strong and extensive global intellectual property portfolio with protection extending through to at least 2041 in all major markets. The Company's proprietary manufacturing processes yield industrial-scale, cryopreserved, off-the-shelf, cellular medicines. These cell therapies, with defined pharmaceutical release criteria, are planned to be readily available to patients worldwide.

Mesoblast is developing product candidates for distinct indications based on its remestemcel-L and rexlemestrocel-L allogeneic stromal cell technology platforms. Remestemcel-L is being developed for inflammatory diseases in children and adults including steroid refractory acute graft versus host disease, biologic-resistant inflammatory bowel disease, and acute respiratory distress syndrome. Rexlemestrocel-L is in development for advanced chronic heart failure and chronic low back pain. Two products have been commercialized in Japan and Europe by Mesoblast's licensees, and the Company has established commercial partnerships in Europe and China for certain Phase 3 assets.

Mesoblast has locations in Australia, the United States and Singapore and is listed on the Australian Securities Exchange (MSB) and on the Nasdaq (MESO). For more information, please see www.mesoblast.com, LinkedIn: Mesoblast Limited and Twitter: @Mesoblast

Forward-Looking Statements

This press release 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. 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. Forward-looking statements include, but are not limited to, statements about: the initiation, timing, progress and results of Mesoblast's preclinical and clinical studies, and Mesoblast's research and development programs; Mesoblast's ability to advance product candidates into, enroll and successfully complete, clinical studies, including multi-national clinical trials; Mesoblast's ability to advance its manufacturing capabilities; the timing or likelihood of regulatory filings and approvals (including any future decision that the FDA may make on the BLA for remestemcel-L for pediatric patients with SR-aGVHD), manufacturing activities and product marketing activities, if any; the commercialization of Mesoblast's product candidates, if approved; regulatory or public perceptions and market acceptance surrounding the use of stem-cell based therapies; the potential for Mesoblast's product candidates, if any are approved, to be withdrawn from the market due to patient adverse events or deaths; the potential benefits of strategic collaboration agreements and Mesoblast's ability to enter into and maintain established strategic collaborations; Mesoblast's ability to establish and maintain intellectual property on its product candidates and Mesoblast's ability to successfully defend these in cases of alleged infringement; the scope of protection Mesoblast is able to establish and maintain for intellectual property rights covering its product candidates and technology; estimates of Mesoblast's expenses, future revenues, capital requirements and its needs for additional financing; Mesoblast's financial performance; developments relating to Mesoblast's competitors and industry; and the pricing and reimbursement of Mesoblast's product candidates, if approved. You should read this press release together with our 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, and 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.

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