

**MESOBLAST AND MALLINCKRODT ENTER INTO EQUITY PURCHASE AGREEMENT
TO EXCLUSIVELY NEGOTIATE DEVELOPMENT AND COMMERCIALIZATION OF
MESOBLAST'S CELL THERAPY PRODUCTS FOR CHRONIC LOW BACK PAIN
AND ACUTE GRAFT VERSUS HOST DISEASE**

New York, USA; and Melbourne, Australia; December 23, 2016: Mesoblast Limited (ASX: MSB; Nasdaq: MESO) today announced that it has entered into an equity purchase agreement with Mallinckrodt Pharmaceuticals and will exclusively negotiate a commercial and development partnership for two of Mesoblast's Tier 1 product candidates, MPC-06-ID in the treatment or prevention of moderate/severe chronic low back pain (CLBP) due to disc degeneration and MSC-100-IV in the treatment of acute graft versus host disease (GVHD).

Under the terms of the agreement, Mallinckrodt will have an exclusive period of up to nine months to conclude commercial and development agreements for the two product candidates in all territories outside of Japan and China. As consideration, Mallinckrodt will purchase approximately 20.04 million (4.99%) of Mesoblast's ordinary shares at a price of A\$1.4761 per share.

Mallinckrodt is a global specialty pharmaceutical company with a major focus within the hospital acute and critical care settings, including pain management, autoimmune and rare diseases, and specialty generic pharmaceuticals. The company's key branded products in these areas, generating multi-billion dollar revenues, include H.P. Acthar Gel® (repository corticotrophin injection) and Therakos® Immunotherapy platform, OFIRMEV® (acetaminophen injection), and INOMAX® (nitric oxide) gas, for inhalation. Recently, Mallinckrodt has entered the regenerative medicine field with the acquisition of an investigational human keratinocyte-based regenerative medicine platform to bolster its pipeline of hospital products with an off-the-shelf skin substitute beginning Phase 3 testing for partial thickness burns.

Mesoblast Chief Executive Silviu Itescu said: "We are pleased that Mallinckrodt has chosen to make an investment in Mesoblast. Mallinckrodt has a track record of success in commercializing medicines for immune-mediated diseases and pain management, and we believe that its major footprint in hospitals addressing acute care needs can be leveraged to realize the full commercial and clinical value of our innovative cellular medicines."

Steven Romano, M.D., Executive Vice President and Chief Scientific Officer of Mallinckrodt, commented: "This agreement provides Mallinckrodt with a potential opportunity to extend our regenerative medicine pipeline in areas of high unmet patient need. We see Mesoblast as a leader in developing innovative cell-based medicines and look forward to establishing a fruitful partnership."

Mesoblast's product candidate MPC-06-ID is currently being evaluated in a 360-patient Phase 3 trial as a treatment for moderate/severe CLBP due to disc degeneration in patients who have failed other non-surgical options, including steroid injections and opioids. Data from 24-month follow up of 100 patients participating in a randomized, placebo-controlled Phase 2 trial of MPC-06-ID were presented in August 2016 at the 24th Annual Scientific Meeting of the Spine Intervention Society.

Mesoblast's product candidate MSC-100-IV is currently being evaluated in a 60-patient open label Phase 3 trial as a front-line therapy for children with steroid-refractory acute GVHD. The trial was recently successful in a pre-specified interim futility analysis, and Mesoblast expects to fully read out trial results during 2017. Based on guidance from the United States Food and Drug Administration (FDA), Mesoblast believes that positive data from this Phase 3 trial may be sufficient for filing for accelerated approval of MSC-100-IV in the United States. Mesoblast plans to broaden the use of its therapy in adult patients with high-risk steroid-refractory acute GVHD.

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About Mallinckrodt

Mallinckrodt is a global business that develops, manufactures, markets and distributes specialty pharmaceutical products and therapies, as well as nuclear imaging products. Areas of focus include autoimmune and rare diseases in specialty areas like neurology, rheumatology, nephrology, pulmonology and ophthalmology; immunotherapy and neonatal respiratory critical care therapies; analgesics and hemostasis products; and central nervous system drugs. The company's core strengths include the acquisition and management of highly regulated raw materials and specialized chemistry, formulation and manufacturing capabilities. The company's Specialty Brands segment includes branded medicines and its Specialty Generics segment includes specialty generic drugs, active pharmaceutical ingredients and external manufacturing. To learn more about Mallinckrodt, visit www.mallinckrodt.com

About Mesoblast

Mesoblast Limited (ASX:MSB; Nasdaq:MESO) is a global leader in developing innovative cell-based medicines. The Company has leveraged its proprietary technology platform, which is based on specialized cells known as mesenchymal lineage adult stem cells, to establish a broad portfolio of late-stage product candidates. Mesoblast's allogeneic, 'off-the-shelf' cell product candidates target advanced stages of diseases with high, unmet medical needs including cardiovascular diseases, immune-mediated and inflammatory disorders, orthopedic disorders, and oncologic/hematologic conditions.

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. 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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