UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

Mesoblast Limited

(Exact name of registrant as specified in its charter)

Australia (State or other jurisdiction of incorporation or organization) Not applicable (I.R.S. Employer Identification No.)

Level 38 55 Collins Street Melbourne 3000 Australia Telephone: +61 (3) 9639-6036 (Address of principal executive offices including zip code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered American Depositary Shares, each representing 5 Ordinary Shares Ordinary Shares, no par value Name of each exchange on which each class is to be registered NASDAQ Global Select Market NASDAQ Global Select Market*

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A. (c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A. (d), check the following box.

Securities Act registration statement file number to which this form relates: 333-207719

Securities to be registered pursuant to Section 12(g) of the Act: None

* Application to be made for listing, not for trading, but only in connection with the registration of American Depositary Shares pursuant to requirements of the Securities and Exchange Commission.

Item 1. Description of Registrant's Securities to be Registered

For a description of the securities of Mesoblast Limited (the "Registrant") being registered hereunder, reference is made to the information set forth under the heading "Description of American Depositary Shares" and "Description of Share Capital" contained in the Registrant's registration statement on Form F-1 (File No. 333-207719), as initially filed with the Securities and Exchange Commission (the "Commission") on November 2, 2015, as amended (the "Registration Statement"), and in the prospectus included in the Registration Statement to be filed separately by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, which prospectus shall be deemed to be incorporated by reference herein.

Item 2. Exhibits

Under the "Instructions as to Exhibits" section of Form 8-A, no exhibits are required to be filed because no other securities of the Registrant are to be registered on the NASDAQ Global Select Market and the securities to be registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Date: November 9, 2015

MESOBLAST LIMITED

By: /s/ Silviu Itescu

Silviu Itescu Chief Executive Office and Executive Director