(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 November 2012 (22.11.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/155209 A1

(51) **International Patent Classification**:
A61K 35/12 (2006.01) *A61K 35/28* (2006.01)
A61P 3/04 (2006.01) *C12N 5/077* (2010.01)

(21) **International Application Number**:
PCT/AU2012/000549

(22) **International Filing Date**:
18 May 2012 (18.05.2012)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
61/488,037 19 May 2011 (19.05.2011) US

(71) **Applicant** *(for all designated States except US)*: **MESOBLAST, INC** [US/US]; 275 Madison Ave, 4th Floor, New York, New York 10016 (US).

(72) **Inventors; and**
(75) **Inventors/Applicants** *(for US only)*: **KRISHNAN, Ravi** [AU/AU]; 63 Battams Road, Royston Park, South Australia 5070 (AU). **ITESCU, Silviu** [AU/AU]; Level 39, 55 Collins Street, Melbourne, Victoria 3000 (AU).

(74) **Agent**: **FB RICE**; Level 23, 200 Queen Street, Melbourne, Victoria 3000 (AU).

(81) **Designated States** *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

WO 2012/155209 A1

(54) **Title**: METHODS FOR TREATING OBESITY AND/OR METABOLIC SYNDROME

(57) **Abstract**: The present disclosure provides methods of treating or preventing obesity or causing weight loss or treating or preventing metabolic syndrome comprising administering to a subject a population of cells enriched for STRO-1$^+$ cells and/or progeny thereof and/or soluble factors derived therefrom.