



(51) International Patent Classification:

C12N 5/074 (2010.01) C12N 5/0783 (2010.01)
C12N 5/0789 (2010.01) C12N 5/0775 (2010.01)
C12N 5/0781 (2010.01)

(21) International Application Number:

PCT/AU2015/050306

(22) International Filing Date:

4 June 2015 (04.06.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2014902175 6 June 2014 (06.06.2014) AU

(71) Applicant: FUWAN PTY LTD [AU/AU]; Level 2, Brandl Street, Eight Mile Plains, Queensland 4113 (AU).

(72) Inventors: PAI, Shou-hsiung; c/- Fuwan Pty Ltd, Level 2, 88 Brandl Street, Eight Mile Plains, Queensland 4113 (AU). LEE, Yi-jen; c/- Fuwan Pty Ltd, Level 2, 88 Brandl Street, Eight Mile Plains, Queensland 4113 (AU). LIU, Jah-yao; C/- Fuwan Pty Ltd, Level 2, 88 Brandl Street, Eight Mile Plains, Queensland 4113 (AU).

(74) Agent: WATERMARK PATENT & TRADE MARKS ATTORNEYS; Level 2/302 Burwood Road, Hawthorn, Victoria 3122 (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, BN, 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, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, ST, 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, KM, ML, MR, NE, SN, TD, TG).

Published:

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

(54) Title: A METHOD OF GENERATING MULTILINEAGE POTENTIAL CELLS FROM LYMPHOCYTES

(57) Abstract: The present invention relates generally to a method of generating cells exhibiting multilineage potential and to cells generated thereby. More particularly, the present invention is directed to an in vitro method of generating mammalian stem cells from CD4* mononuclear cells, CD8* mononuclear cells, CD25* mononuclear cells, CD19* mononuclear cells or CD20* mononuclear cells and to cells generated thereby. This finding has now facilitated the design of means for reliably and efficiently generating populations of multilineage potential cells, such as stem cells, for use in a wide variety of clinical and research settings. These uses include, inter alia, the directed differentiation, either in vitro or in vivo, of the subject multilineage potential cells and the therapeutic or prophylactic treatment of a range of conditions either via the administration of the multilineage potential cells of the invention or the more fully differentiated cellular populations derived therefrom. Also facilitated is the design of in vitro based screening systems for testing the therapeutic impact and/or toxicity of potential treatment or culture regimes to which these cells may be exposed.

