



(51) International Patent Classification:
C12N 5/071 (2010.01) C12N 5/074 (2010.01)
C12N 5/073 (2010.01)

(21) International Application Number:
PCT/US2021/030686

(22) International Filing Date:
04 May 2021 (04.05.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/020,247 05 May 2020 (05.05.2020) US

(71) Applicant: ACCELERATED BIOSCIENCES CORP.
[US/US]; 5845 Avenida Encinas, Suite 130, Carlsbad, California 92008 (US).

(72) Inventors: LEE, Jau-Nan; No. 1 Nan Shin Chen Street, Kaohsiung, 806 (TW). LEE, Yuta; No. 218 MingCheng 4th Road, Kaohsiung, 804 (TW). LEE, Tony Tung-Yin; 9210 Coolidge Road, Yakima, Washington 98903 (US).

(74) Agent: JAMROZ, Megan; Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, California 94304 (US).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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,

(54) Title: MORTAL PLURIPOTENT STEM CELLS

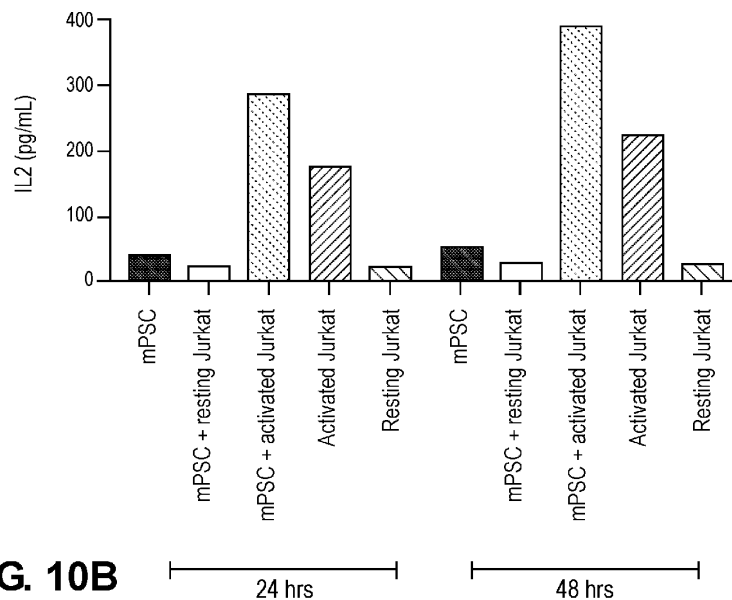


FIG. 10B

(57) Abstract: Disclosed herein are mortal pluripotent stem cells produced *in vitro* from extra-embryonic stem cells such as trophoblast stem cells, compositions thereof, and uses thereof. Also disclosed herein are methods of culturing the mortal pluripotent stem cells produced *in vitro* with one or more inducing agents to produce a cell population. Also disclosed herein are methods of treating a disorder or condition by utilizing the cells disclosed herein and cells differentiated therefrom.

[Continued on next page]

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))*

Published:

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