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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 January 2018 (25.01.2018)

WIPO | PCT

(10) International Publication Number
WO 2018/015954 A1

(51) International Patent Classification:
C12N 5/0735 (2006.01) *C12N 5/071* (2010.01)

(21) International Application Number:
PCT/IL2017/050812

(22) International Filing Date:
19 July 2017 (19.07.2017)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/363,879 19 July 2016 (19.07.2016) US

(71) Applicant: **ACCELLTA LTD.** [IL/IL]; Malat Building 3rd Floor, Campus of The Technion, 3200004 Haifa (IL).

(72) Inventors: **AMIT, Michal**; 261 Yuvalim, 2014200 Misgav (IL). **ANGEL, Itzchak**; 22 Lotus Street, 7404578 Nes Ziona (IL).

(74) Agent: **EHRLICHE, Gal** et al.; G. E. Ehrlich (1995) Ltd., 11 Menachem Begin Road, 5268104 Ramat Gan (IL).

(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, 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, 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,

WO 2018/015954 A1

(54) **Title:** CULTURE MEDIA FOR CULTURING PLURIPOTENT STEM CELLS IN SUSPENSION

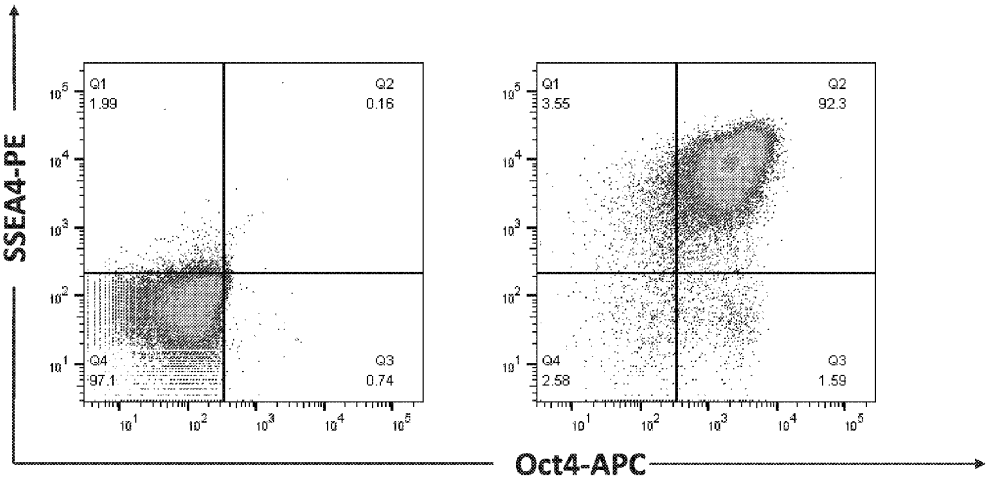


Fig. 23B

(57) **Abstract:** Provided are defined culture media for culturing pluripotent stem cells in a suspension culture devoid of substrate adherence, the defined culture media comprising an effective amount of a protease inhibitor; a GSK3β inhibitor and at least one agent selected from the group consisting of a protease inhibitor and a WNT3A polypeptide; a WNT3A polypeptide and a stabilizing agent thereof with the proviso that said stabilizing agent is not a lipid vesicle; and/or a GSK3β inhibitor, with the proviso that the medium is devoid of an ERK1/2 inhibitor. Also provided are cell cultures and methods of suing same.

[Continued on next page]

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))*
— *with sequence listing part of description (Rule 5.2(a))*