

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
29 September 2022 (29.09.2022)



(10) International Publication Number
WO 2022/201147 A1

(51) International Patent Classification:

C12N 5/0735 (2022.01) C12N 5/00 (2022.01)
C12N 5/077 (2022.01) C12N 5/071 (2022.01)

(21) International Application Number:

PCT/IL2022/050310

(22) International Filing Date:

20 March 2022 (20.03.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/164,047 22 March 2021 (22.03.2021) US

(71) Applicant: **RAMOT AT TEL AVIV UNIVERSITY LTD.** [IL/IL]; P.O. Box 39296, 6139201 Tel Aviv (IL).

(72) Inventors: **NACHMAN, Iftach**; c/o Ramot at Tel-Aviv University Ltd., P.O. Box 39296, 6139201 Tel Aviv (IL).
SAVYON, Gaya; c/o Ramot at Tel-Aviv University Ltd., P.O. Box 39296, 6139201 Tel Aviv (IL).

(74) Agent: **SILVERMAN, Eran** et al.; FISHER FRIEDMAN IP GROUP, PO BOX 12352, 4673300 Hertzliya Pituach (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, IT, JM, 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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

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

(54) Title: METHODS FOR CULTURING AND DIFFERENTIATING PLURIPOTENT CELLS INTO PROGENITOR OR MATURE MUSCLE CELLS AND COMPOSITION COMPRISING SAID CELLS

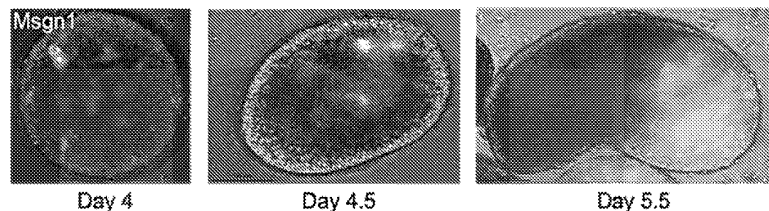


FIG. 2A

(57) Abstract: Provided herein are artificially cultured somites comprising mature muscle progenitor cells and/or mature muscle cells, methods of obtaining same and methods for fast, large scale production of cultured meat comprising mature muscle cells.

WO 2022/201147 A1