

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 January 2025 (16.01.2025)



(10) International Publication Number
WO 2025/015161 A1

(51) International Patent Classification:

C12N 5/073 (2010.01) C12N 5/077 (2010.01)
C12N 5/0735 (2010.01)

(21) International Application Number:

PCT/US2024/037598

(22) International Filing Date:

11 July 2024 (11.07.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/513,412 13 July 2023 (13.07.2023) US

(71) Applicant: **WISCONSIN ALUMNI RESEARCH FOUNDATION** [US/US]; 614 Walnut Street, 13th Floor, Madison, WI 53726 (US).

(72) Inventors: **SLUKVIN, Igor, I.**; 1 Turnwood Circle, Verona, WI 53593 (US). **STRELCHENKO, Nick**; 380 Campbell Hill Court, DeForest, WI 53532 (US).

(74) Agent: **CONOUR, John, E.**; McDonnell Boehnen Hulbert & Berghoff LLP, 300 South Wacker Drive, Chicago, IL 60606 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: GENERATION OF ADIPOCYTES FROM BOVINE EMBRYONIC STEM CELL LINES

(57) Abstract: Methods for generating feeder-free and serum-free bovine embryonic stem cells (bESCs) and meat components, such as adipocytes, from bESCs are provided along with the related compositions.



WO 2025/015161 A1