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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 March 2013 (28.03.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/041961 A1

(51) International Patent Classification:
C07K 14/78 (2006.01) *C12N 5/00* (2006.01)
C07K 14/705 (2006.01) *C12M 3/00* (2006.01)

(21) International Application Number:
PCT/IB2012/002214

(22) International Filing Date:
19 September 2012 (19.09.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/537,940	22 September 2011 (22.09.2011)	US
61/565,380	30 November 2011 (30.11.2011)	US
61/565,849	1 December 2011 (01.12.2011)	US
61/624,588	16 April 2012 (16.04.2012)	US
61/625,321	17 April 2012 (17.04.2012)	US

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(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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, 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, 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,

[Continued on next page]

(54) Title: CELL CULTURE SUBSTRATE COMPRISING A LAMININ AND A CADHERIN

(57) Abstract: The present disclosure related to isolated laminin-521, methods for making recombinant laminin-521, host cells that express recombinant laminin-521, and compositions containing laminin-521. Laminin-521 can maintain stem cells in vitro pluripotency, enable self-renewal, and enable single cell survival of human embryonic stem cells. When pluripotent human embryonic stem cells are cultured on plates coated with recombinant laminin-521 (laminin-11), in the absence of differentiation inhibitors or feeder cells, the embryonic stem cells proliferate and maintain their pluripotency. It has also been discovered that human recombinant laminin-521 (laminin-11) provides single cell survival of stem cells after complete dissociation into a single cell suspension. Useful cell culture mediums containing at most 3.9 ng/ml of beta fibroblast growth factor (bFGF) are also described herein.

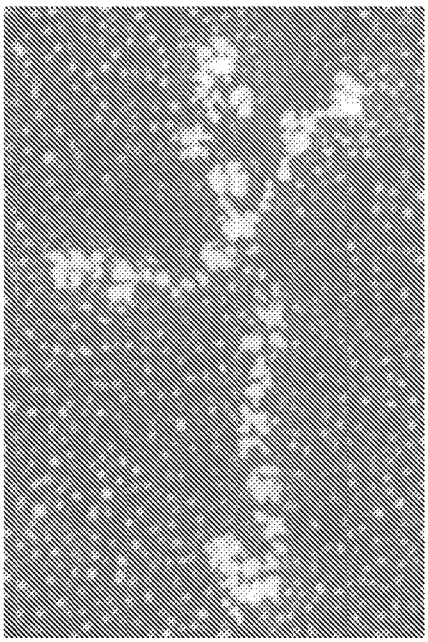


FIG. 1

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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, 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))*