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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
26 April 2007 (26.04.2007)

PCT

(10) International Publication Number
WO 2007/047766 A2

(51) International Patent Classification:
C12N 15/88 (2006.01) *C12N 5/08* (2006.01)

(21) International Application Number:
PCT/US2006/040723

(22) International Filing Date: 16 October 2006 (16.10.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/726,915 14 October 2005 (14.10.2005) US
11/358,465 21 February 2006 (21.02.2006) US

(71) Applicant and
(72) Inventor: **HU, Jifan** [US/US]; 745 Seminole Way, Palo Alto, CA 94303 (US).

(74) Agent: **LUTHER, Barbara, J.**; THE LUTHER LAW FIRM, PLC, 10575 N. 114th Street, Suite 103, Scottsdale, AZ 85259 (US).

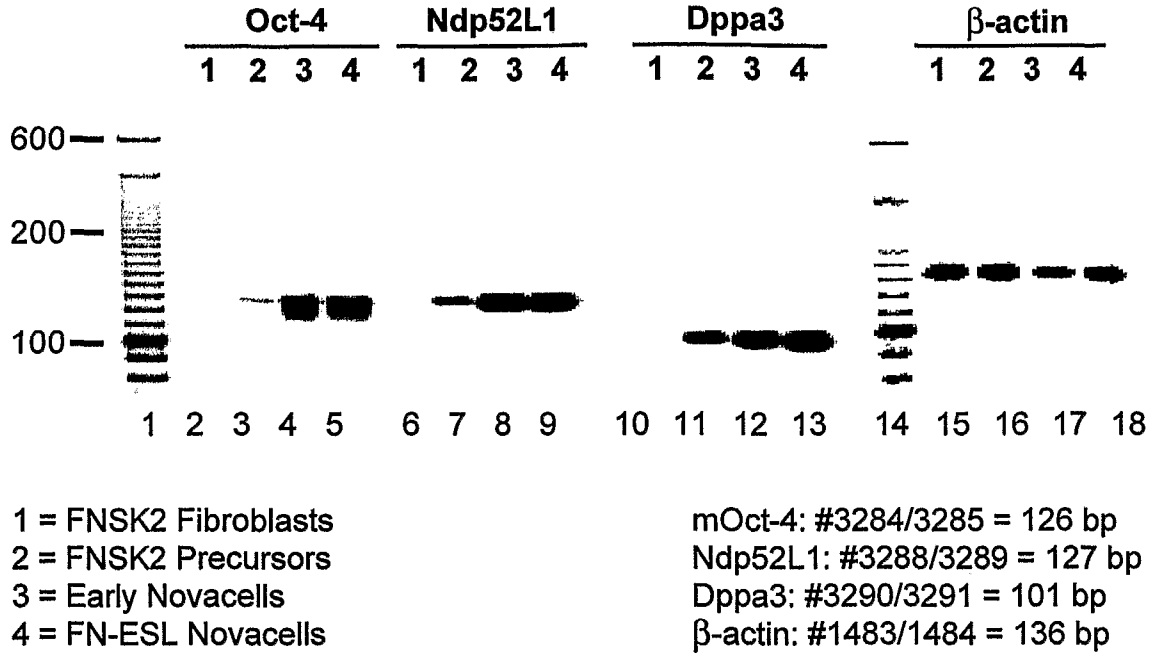
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** METHODS FOR REJUVENATING CELLS IN VITRO AND IN VIVO



(57) **Abstract:** The present invention provides methods for rejuvenating cells, tissues and the whole body. Also provided are rejuvenating buffers and agents as well as kits for rejuvenating cells. Also provided are methods for dedifferentiating somatic cells and differentiating the cells into other cell types.

WO 2007/047766 A2