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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 February 2011 (17.02.2011)

PCT

(10) International Publication Number
WO 2011/019092 A1

(51) International Patent Classification:
C12N 5/07 (2010.01)

(21) International Application Number:
PCT/JP2010/063953

(22) International Filing Date:
12 August 2010 (12.08.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/272,055 12 August 2009 (12.08.2009) US
61/282,970 30 April 2010 (30.04.2010) US

(71) Applicant *(for all designated States except US)*: **KYOTO UNIVERSITY** [JP/JP]; 36-1, Yoshida-honmachi, Sakyo-ku, Kyoto-shi, Kyoto, 6068501 (JP).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **TAKAHASHI, Jun** [JP/JP]; c/o Institute for Frontier Medical Sciences, Kyoto University, 53, Kawahara-cho, Shogoin, Sakyo-ku, Kyoto-shi, Kyoto, 6068507 (JP). **MORIZANE, Asuka** [JP/JP]; c/o Institute for Frontier Medical Sciences, Kyoto University, 53, Kawahara-cho, Shogoin, Sakyo-ku, Kyoto-shi, Kyoto, 6068507 (JP).

(74) Agents: **HIRAKI, Yusuke** et al.; Kamiya-cho MT Bldg. 19F, 3-20, Toranomon 4-chome, Minato-ku, Tokyo, 1050001 (JP).

(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, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, 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))*

WO 2011/019092 A1

(54) Title: METHOD FOR INDUCING DIFFERENTIATION OF PLURIPOTENT STEM CELLS INTO NEURAL PRECURSOR CELLS

(57) Abstract: The present invention provides a method for inducing differentiation of pluripotent stem cells into neural precursor cells, comprising culturing the pluripotent stem cells in the presence of a small molecule BMP inhibitor, and induced neural precursor cells prepared by this method.