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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 March 2005 (10.03.2005)

PCT

(10) International Publication Number
WO 2005/021704 A2

(51) International Patent Classification[7]: C12N

(21) International Application Number:
PCT/IB2004/002847

(22) International Filing Date:
2 September 2004 (02.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
901/MUM/2003 3 September 2003 (03.09.2003) IN
60/557,895 31 March 2004 (31.03.2004) US

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(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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, IT, LU, 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).

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— *of inventorship (Rule 4.17(iv)) for US only*

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

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(54) **Title:** IN VITRO GENERATION OF GABAERGIC NEURONS FROM EMBRYONIC STEM CELLS AND THEIR USE IN THE TREATMENT OF NEUROLOGICAL DISORDERS

(57) **Abstract:** The present disclosure is directed to improved methods for efficiently producing neuroprogenitor cells and differentiated neural cells such as GABAergic neurons from pluripotent stem cells, for example embryonic stem cells. Using the disclosed methods, cell populations containing a high proportion of GABAergic neurons have been isolated. The neuroprogenitor cells and terminally differentiated cells of the present disclosure can be generated in large quantities, and therefore may serve as an excellent source for cell replacement therapy in neurodegenerative disorders and neuronal diseases such as stroke, ischemia, epilepsy, and Huntington's disease.

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