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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 October 2002 (24.10.2002)

PCT

(10) International Publication Number
WO 02/083864 A2

(51) International Patent Classification[7]: C12N

(21) International Application Number: PCT/US02/11694

(22) International Filing Date: 12 April 2002 (12.04.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/283,837	13 April 2001 (13.04.2001)	US
60/298,811	15 June 2001 (15.06.2001)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US	60/283,837 (CON)
Filed on	13 April 2001 (13.04.2001)
US	60/298,811 (CON)
Filed on	15 June 2001 (15.06.2001)

(71) Applicant *(for all designated States except US)*: **ANTEROGEN CO., LTD.** [KR/KR]; 399-1 Daebang-dong, Dongjak-gu, Seoul 156-811 (KR).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **LEE, Ike, W.** [US/US]; 178 Edgehill Road, Norwood, MA 02062 (US). **LIU, Guizhen** [CN/US]; 102 Village Road, West, Norwood, MA 02062 (US). **HAMPE, James** [US/US]; 107 Gainsville Road, Dedham, MA 02026 (US). **CROISSANT, Jeffrey, D.** [US/US]; 12 Seagull Lane, Scituate, MA 02066 (US).

(74) Agent: **BIEKER-BRADY, Kristina**; Clark & Elbing LLP, 101 Federal Street, Boston, MA 02110 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (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.

WO 02/083864 A2

(54) Title: METHODS AND REAGENTS FOR CELL TRANSPLANTATION

(57) Abstract: The invention features methods for producing cells for transplantation into myocardial tissue of a mammal (e.g., a human). The method includes the steps of (a) providing a population of bone marrow stem cells; (b) culturing the cells under conditions that induce the cells to become cardiomyogenic cells; (c) monitoring the state of differentiation of the cells of step (b); and (d) collecting the cells of step (b) when at least about 10% and as many as 100% of the cells are cardiomyogenic cells. The bone marrow stem cells can be, for example, human bone marrow stem cells. In one embodiment, the method includes the step of transplanting the differentiated stem cells into a mammal (e.g., a human).