11 Mar 03

9003011624

162162

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

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 April 2002 (11.04.2002)

PCT

(10) International Publication Number
WO 02/028470 A1

(51) International Patent Classification[7]: A61M 31/00

(21) International Application Number: PCT/US01/28712

(22) International Filing Date:
11 September 2001 (11.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/231,880 12 September 2000 (12.09.2000) US

(71) Applicant and
(72) Inventor: LAW, Peter, K. [US/US]; 1770 Moriah Woods Blvld., Memphis, TN 38117-7126 (US).

(74) Agent: MOTSENBOCKER, Marvin; Heller Ehrman White & McAuliffe LLP, 1666 K Street, N.W., Suite 300, Washington, DC 20006 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), 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, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK (utility model), SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

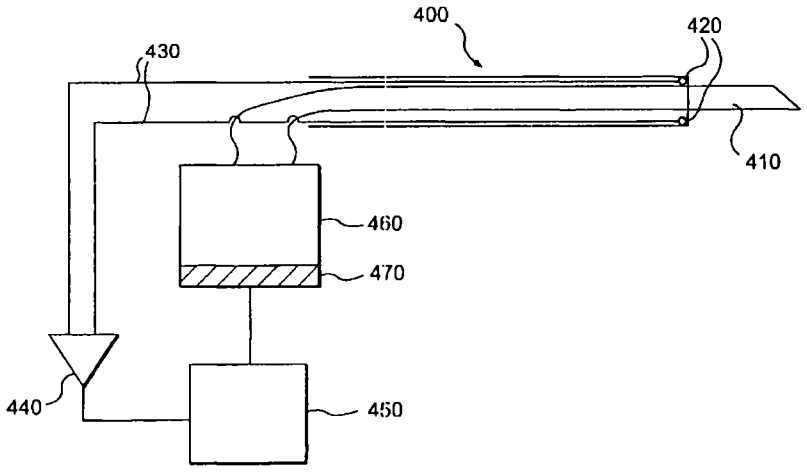
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(48) Date of publication of this corrected version:
13 November 2003

[Continued on next page]

(54) Title: MYOGENIC CELL TRANSFER CATHETER AND METHOD



(57) Abstract: Catheters and methods for their use are presented that provide automated delivery of cells to structures in the body such as degenerative or weak muscle. The catheters contain one or more sensing components and a system for delivery of cells such as autologous myogenic cells. The sensing component(s) triggers automatic discharge of the cells upon detection of a body surface that needs repair. The discharge of cells may occur through an automated lancing mechanism that alleviates operator error from manual injection timing. During use, an operator can position the catheter end to a structure in need of cellular repair, and the device can automatically discharge cells at a location and time as determined by conditions sensed at the catheter end. A catheter and system is particularly useful for repair of degenerative and or weak heart muscle, such as that found after a myocardial infarct. The catheters and methods of their use also may be used for cellular repair of other interior body structures, particularly muscles such as bladder, intestine, stomach and diaphram. The catheters provide greater use of myogenic cell therapy for heart disease, while avoiding complications of open heart surgery.

WO 02/028470 A1

ACTION

(15) **Information about Correction:**
see PCT Gazette No. 46/2003 of 13 November 2003, Section II

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.