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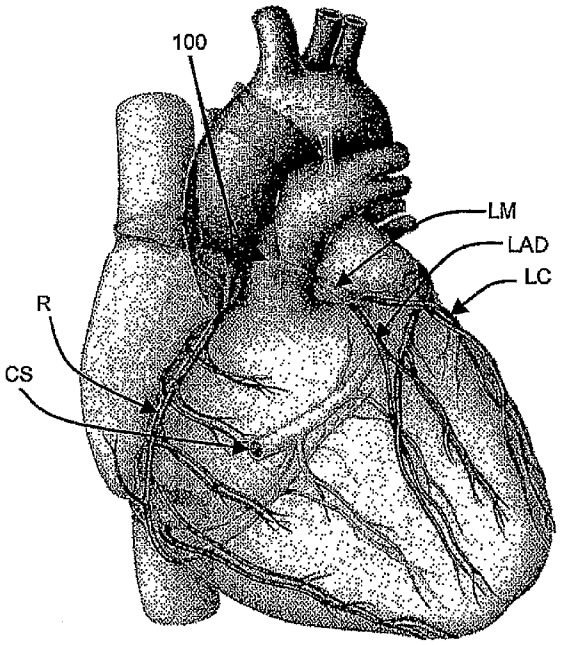
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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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[Continued on next page]

(54) Title: POLYNUCLEOTIDE DELIVERY TO CARDIAC TISSUE



(57) Abstract: A method for delivering a polynucleotide to cardiac tissue, including substantially isolating the coronary venous circulation from systemic circulation, and introducing a polynucleotide into the isolated coronary venous circulation to effect localized transfection of cardiac tissue. The polynucleotide advantageously produces a therapeutic effect, such as increasing or decreasing the expression level of a protein in the cardiac tissue.

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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).

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: A61K 48/00, A61M 25/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPAT, MEDLINE: Polynucleotide, DNA, Gene, Gene therapy, Cardiac, Heart, Coronary, Serca, Serca+, Sarcoendoplasmic reticulum ATPase, Phospholamban, S16E, Zinc finger, protein.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003211080A. (University of California). 13 November 2003. (See abstract).	1-61
A	Masahiko, Hoshijima. 2005. Gene therapy targeted at calcium handling as an approach to the treatment of heart failure. Pharmacology and Therapeutics, 105 (3): 211-228. (See abstract).	1-61
A	Frank, K.F. 2003. Sarcoplasmic reticulum Ca2+-ATPase modulates cardiac contraction and relaxation. Cardiovascular Research, 57(1): 20-27. (See abstract).	1-61

☐ Further documents are listed in the continuation of Box C ☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
4 October 2005	21 OCT 2005
Name and mailing address of the ISA/AU	Authorized officer
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU2005/001280

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	2003211080	AU	54820/96	AU	2004204815	CA	2217967
		EP	0820310	US	6605274	WO	9632139
		WO	2004062618				

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX